

Enhancing Wisconsin's Urban Forests

Assessment of Wisconsin's Urban Forestry Assistance Program

A Report by the Urban Forestry Study Team

February 6, 2001

Wisconsin Department of Natural Resources
Urban Forestry Study Team:

Donald G. Thompson, Forest Lands Section Chief, Team Leader (retired)

Richard B. Rideout, State Urban Forestry Coordinator, Team Staff

Tom Mickelson, Facilitator (retired)

Team Members:

Patrick Bonadurer, City Forester, La Crosse

Lisa Burban, USDA Forest Service, St. Paul, MN

Cindy Casey, Regional Urban Forestry Coordinator, Eau Claire

John DeLaMater, Regional Lands Leader, Eau Claire (retired)

Andrea Diss, Gypsy Moth Coordinator, Madison

J. Robert Egan, Community Financial Assistance Coordinator, Madison (retired)

Roald Evensen, Immediate Past Chair, Wisconsin Urban Forestry Council, River Falls

Leif Hubbard, WDOT, Madison

Greg Lancaster, Lancaster and Associates, Inc., Madison

Janet F. Libby, Community Financial Assistance Coordinator, Madison

Dr. Robert W. Miller, UW-Stevens Point, Stevens Point

Russ Pope, Forest Planner, Madison (retired)

Dan Traas, Ranger Services, Inc., Appleton

TABLE OF CONTENTS

Introduction	1.
How to use this report	1.
Executive Summary	2.
Summary of Recommendations	4.
Wisconsin's Urban Forest Resource	9.
The Wisconsin Urban Forestry Assistance Program	12.
Study Methodology	15.
Study Results	16.
A. The State of the Resource	16.
B. Program Performance	18.
C. Program Issues	26.
1. Program Structure	26.
2. Staff Efficiency and Effectiveness in Providing Assistance	28.
3. Urban Forestry Grant Program	32.
4. Urban Forestry Awareness	35.
5. Partnerships	37.
6. Small Communities	39.
D. Future Urban Forestry Assistance Roles	41.
E. Proposed Urban Forestry Strategic Goals	43.
Conclusion	44.
Appendix Document (<i>Available on request</i>)	
I. Wisconsin Urban and Community Forestry Plan, October 1993	
II. DNR Urban Forestry Assistance Guidelines	
III. Accomplishments by Goal	
IV. Urban Forestry State and Regional Coordinator Report – Results from In-depth Interviews	
V. Urban Forestry Council Report – Results of Focus Group and Interview Discussions with the Urban Forestry Council	
VI. Trees In Your Community – Results of the 1999 Community Urban Forestry Survey	
VII. Appendix A: Non Participant Profile	
VIII. Appendix B: Comparing Results: 1992 and 1999 Urban Forestry Surveys	
IX. Wisconsin Urban Forest Canopy Cover	

INTRODUCTION

In 1990, the DNR began providing urban forestry assistance to local governments, non-government organizations, businesses and other interested groups. The program has proven particularly successful with demand for assistance continually increasing and diversifying.

In April of 1998 the Department of Natural Resources Forestry Management Team (now Forestry Policy Team) established a team of internal staff and external partners to review the department's urban forestry assistance program. The team's charge was to:

- Assess and evaluate the current program;
- Determine the nature of urban forestry assistance the DNR should provide to various customers;
- Review and revise existing goals and objectives of the program;
- Recommend any policy and program changes needed to reach the desired goals;
- Develop measures to assess the success in reaching the program goals

This report is a product of 2½ years of data collection and analysis. It presents background on the urban forest in Wisconsin and the DNR urban forestry assistance program, explains the methodology used for the study, describes the current state of the urban forest, summarizes the accomplishments and results of the current program, and explores major issues that were found through the assessment process. A new set of strategic goals for the program is proposed and priority roles for DNR staff and partners are suggested. Forty-six specific recommendations are made to enhance the current program and position it for the future of urban forestry assistance in Wisconsin.

The report was presented to the Forestry Policy Team on February 6, 2001 and approved. It will now be shared with department administrators, the Wisconsin Urban Forestry Council and other interested parties. Recommendations that are approved will be incorporated into a revised plan for the future of the DNR urban forestry assistance program.

HOW TO USE THIS REPORT

At 45 pages plus an appendix document, this is a daunting report. Here are some strategies to make your review of the information most efficient.

If you are familiar with the urban forest and the DNR's assistance program and are a cut-to-the-chase sort of person, go straight to the **Executive Summary**. As you would expect this contains the essence of the team's findings and a summary of its recommendations. However, most of the justification for those recommendations will not be found here.

If you are not familiar with what an urban forest is, how it's managed or how the DNR provides assistance, start with **The Wisconsin Urban Forest Resource**. These few sections will give you the foundation to make sense out of the rest of the report.

If process is what you like, check out **Methodology** which describes how the team went about gathering and analyzing data about the urban forestry program.

The meat of the report is in **Study Results**. It is here where the data and analysis is presented in detail. Each section ends with a conclusion and recommendations so if you have a question about a recommendation in the Executive Summary, here is where to look.

The **Conclusion** brings it all together and if you are a serious analyzer, request the **Appendix Document** where over 160 pages of the data used to assess the program lies.

EXECUTIVE SUMMARY

The urban forest is all of the trees and other vegetation in and around a city, village, or development and it is where 81% of the people of Wisconsin live. The urban forest ecosystem provides important environmental, social and economic benefits to Wisconsin such as reducing storm water runoff and the urban heat island effect, conserving energy, improving public health, increasing property values and attracting business, tourists and residents.

These benefits not only improve the immediate quality of life of the vast majority of Wisconsin residents, but the benefits of the urban forest also affect the natural resources throughout the entire state. Maximizing these benefits is therefore extremely important to the mission of the Department of Natural Resources. For example, improving air and water quality within a community also improves the air and water quality down wind and down stream. Maintaining a high quality of life within a community encourages infill development and reduces urban sprawl pressure. And most importantly, an awareness of the urban forest ecosystem can give urban residents, particularly children, their first understanding of the importance and value of natural resources in Wisconsin.

The health and extent of the urban forest is threatened by a variety of factors which threaten the benefits the forest provides. Though development creates urban forest, unplanned and poorly-designed development will remove existing canopy cover unnecessarily. The remaining trees will suffer construction injury and be lost, and the spaces designed for tree planting will be inadequate, causing long-term management problems. Rapid development also puts a strain on local governments' staff and budget resources, making management of the new and existing urban forest more difficult. Inadequate support and improper management by community officials, private property owners or commercial companies can result in hazardous trees, windthrow, disease and pest outbreaks, even environmental justice issues.

Managing this fragmented web of green space is a complex task that requires skills in arboriculture, forestry, ecology, engineering, sociology, political science, volunteer development, personnel management and public relations. It is the responsibility of not only the local government, but of every private property owner in the community.

In 1990, the DNR began providing urban forestry assistance to local governments, non-government organizations, businesses and other interested groups. Structured as a working group within the forestry program, the assistance effort is staffed by one state coordinator, six regional coordinators and two federally funded limited term employees. An annual urban forestry assistance grant from the USDA Forest Service and an annual state appropriation from the forestry account provide funds for pass-through grants and program activities. Community Financial Assistance and Finance staff provide certain grant management services to the working group.

The urban forestry working group provides technical assistance, training and education, cost-share grants, public awareness and networking assistance to public, private and volunteer urban foresters. The urban forestry program has proven particularly successful with demand for assistance continually increasing and diversifying.

In April of 1998 the Department of Natural Resources Forestry Management Team (now Forestry Policy Team) established a team of internal staff and external partners to review the department's urban forestry assistance program. The intent of the study was to evaluate the program to-date and chart the program's future. The team gathered program data from staff and through in-depth interviews, focus groups and a clientele survey provided by contract with the Bureau of Integrated Science Services. Urban forest resource data was gathered by contract with the University of Wisconsin-Stevens Point. Collectively the data resulted in seven reports that the study team reviewed through a series of facilitated meetings and small group exercises to which produced the study results.

The study results are divided into five sections each presenting study data, analysis, conclusions and recommendations. Collectively, these recommendations reflect the study team's vision of the future for the urban forestry program.

The initial assessment of the resource found that there are about 1.7 million acres of urban forest in Wisconsin or about 4.7% of the land area. Canopy cover, a measure of the extent of the tree resource in a community and an indicator of the level of benefits it provides, averages 29% statewide. However, the optimal canopy cover is not yet known, nor is the optimal composition of the urban forest.

The study concluded that, to this point, the urban forestry assistance program has been doing an excellent job of addressing the needs of the state's communities. The members of the urban forestry working group work exceptionally well as a team and are respected both locally and nationally. The program produces quality products including annual cost-share grants, a quarterly newsletter, an annual conference, an annual hands-on workshop series, numerous public presentations and direct consultation. In addition, the program has developed successful partnerships with industry and nonprofit organizations.

The study team identified six issues that required further scrutiny and analysis which formed the foundation of most of the report's recommendations. These issues are: Program Structure; Staff Efficiency and Effectiveness; Urban Forestry Grant Program; Urban Forestry Awareness; Partnerships; and Small Communities. In addition the team revised the existing eight strategic goals of the program combining Partnerships and Coordination & Cooperation into one goal and adding The Urban Forest Resource.

The study draws several broad conclusions. Overall, the urban forestry program is strong in what it provides and it should continue with its successes. This is reflected in 14 of the study team's recommendations. However, there are two major trends that compel the program to evolve. First, the urban forest has changed, growing larger each year and evolving from a focus on public street trees to a concept of an urban ecosystem. Second, urban forestry assistance needs have dramatically expanded. Many more communities and groups are involved and are requesting a broader range of services from land use planning to volunteer management.

In response to these trends, the study team strongly recommends strategic expansion of the urban forestry program. Specifically, expand the urban forestry working group and its role as coordinator, while maintaining its highly valued direct assistance and reducing its role in performing non-urban forestry functions. These strategic changes will meet current and future demand by improving staff efficiency and by directing a greater focus on increasing partnerships and assistance capacity at all levels.

It is imperative that the program meet the current demands for assistance, both directly and through facilitation and coordination, for as the backlog increases, the urban forestry coordinators, the program's reputation and the urban forest resource will suffer. In addition to the existing demand for assistance, expanding urbanization, land use and smart growth issues in the next ten years will greatly increase, and change, the need for cutting-edge urban forestry assistance at the community level and within the DNR itself. Knowledge of the character of the urban forest resource will be particularly critical during this time. Without it, forestry will be left out of the department's urban land use equation. Finally, the concern over diversion of mil tax funds away from urban areas certainly will not go away and an expanded urban forestry program can provide public, community and legislative support for the forestry program as a whole.

This report offers opportunities to capitalize positively on the urban trends in Wisconsin. Approval and implementation of the study team's recommendations will position the Division of Forestry and the DNR to lead a broad effort in management of urban natural resources for years to come.

SUMMARY OF RECOMMENDATIONS

Below is a summary of the team's recommendations. Once approved, the recommendations will be incorporated into the 2001 revision of the urban forestry working group's strategic plan. An implementation plan will establish the priority and projected completion date for each recommendation with input from the Wisconsin Urban Forestry Council and subject to approval by the Forestry Policy Team.

Each recommendation is identified with the section letter and recommendation number, e.g. A.1. There are several recommendations that are similar or repeated under more than one section. These are cross-referenced in parentheses.

A. THE STATE OF THE URBAN FOREST

The urban forest's potential environmental, social and economic benefits are dependent on the extent, condition, composition and structure of the forest. The DNR has begun to assess the character of the urban forest, identifying an average canopy cover of 29% across the state. However, in order to provide management assistance and science-based resource objectives to maximize those benefits, it is critical that the urban forestry program further characterize the resource.

- A.1. Expand the characterization of the urban forest beyond just canopy cover, and use the information to develop resource-based goals for communities in each of the various geographic and demographic areas of the state.
- A.2. Promote the use of resource-based goals to local governments, environmental and service groups, builders and developers, urban property owners and residents.

B. PROGRAM PERFORMANCE

Program accomplishments have substantively addressed objectives in seven of the eight urban forestry strategic plan goals and work towards the objectives of the eighth goal is in progress. The DNR's urban forestry assistance is considered to be a very high quality program, appreciated and respected by its clientele. The staff are viewed as dedicated, hard-working, skilled professionals that are strong advocates for the communities they serve. The team structure of the urban forestry working group has been very successful and has capitalized on the individual strengths of its members. The products the program produces – newsletters, workshops, conferences, presentations – are consistently rated very high. The urban forestry grants are ranked first in preferred assistance and are in high demand. The program works closely with nonprofit organizations and private enterprise to encourage increased capacity for urban forestry assistance. There are, however, opportunities for improvement and to use existing tools for new solutions.

- B.1. (E.2) Update the 1993 urban forestry strategic plan in 2001 to reflect recommendations in this report.
- B.2. Develop a strategic implementation plan with practical performance measures in 2001 to prioritize study recommendations and allow for monitoring of progress toward completion.

C. PROGRAM ISSUES

During the study, a number of common themes began to emerge. These themes were given further scrutiny and analysis and developed into "Program Issues."

C.1. PROGRAM STRUCTURE

The team structure of the urban forestry assistance program has been successful and continues to work well. Operating funds for some coordinators are lacking or inadequate. Ineffective communication isolates the urban forestry working group from its internal and external support.

- C.1.a. Maintain the current program structure with the state and regional coordinators working as a team.

- C.1.b.** (C.2.c., C.2.d.) Provide adequate state base-funded operations and program assistance, eliminating reliance on unpredictable federal funds and allowing the federal funds to be better used on program services and pass-through grants.
- C.1.c.** (C.4.i.) Improve communication between the urban forestry coordinators, their supervisors, the forestry policy team and DNR administration.
- C.1.d.** Improve communication between the urban forestry council and the regional coordinators.

C.2. STAFF EFFICIENCY AND EFFECTIVENESS IN PROVIDING ASSISTANCE

The assistance demand is currently 50% above delivery capacity and demand is only going to increase. Direct assistance is highly valued and should be expanded when possible. Coordinators should not be doing work for which they are overqualified or not trained. Job duties should be examined to determine whether the DNR coordinator is the best position to carry out those activities.

- C.2.a.** Continue to provide direct assistance to local governments and non-government organizations.
- C.2.b.** Support the approved 2001-03 budget decision item to hire 2 additional regional urban forestry coordinators to meet the existing demand for assistance in South Central and Northeast regions and explore the need for additional staff.
- C.2.c.** (C.1.b.) Continue to support the approved 2001-03 budget decision item to increase the operations budget to the appropriate level per coordinator.
- C.2.d.** (C.1.b.) Continue to support the approved 2001-03 budget decision item to hire a full-time, state-funded, central office program assistant allowing the state coordinator to implement study recommendations on program management, support and resource assessment and planning.
- C.2.e.** (C.3.c.) Expand appropriate DNR central office and/or regional resources to provide grant administration, clerical and public awareness/information services so regional coordinators may concentrate on providing urban forestry assistance.
- C.2.f.** Identify the most appropriate providers of the full range of urban forestry services, refine the DNR urban forestry working group's prioritized urban forestry assistance guidelines and maintain and strengthen the quality of those services best provided by DNR urban forestry staff.
- C.2.g.** (C.5.d.) Explore and implement methods to increase the bureau of forestry's ability to actively seek out partnerships to increase statewide public, private and nonprofit sector capacity for urban forestry assistance.
- C.2.h.** Incorporate urban forestry related training classes, including technical urban forestry, marketing, people motivation and volunteer management, into the department's forestry training program.

C.3. URBAN FORESTRY GRANT PROGRAM

DNR urban forestry grants are the preferred form of assistance by local governments and nonprofit organizations. They are an extremely valuable teaching and incentive tool for urban forestry resource management. However, grant administration is complex and time consuming for both recipients and DNR staff, and demand exceeds available funds by 50%.

- C.3.a.** Continue to administer and promote the urban forestry grant program.
- C.3.b.** Streamline the grant administration process for both the recipient and the department to reduce administrative workload.
- C.3.c.** (C.2.e.) Shift non-project related grant administration to community financial assistance.
- C.3.d.** Assess grant administration workload and increase community financial assistance staff appropriately to cover increased administration of urban forestry grants.
- C.3.e.** Continue to support the legislative initiative in the 2001-03 budget to change Wis. Stat. 23.097 to allow state urban forestry grant monies to fund county, town and nonprofit projects thereby reducing the administrative complexity of separate eligibility.
- C.3.f.** Continue to eliminate real and perceived impediments to participation of small communities and nonprofit organizations.
- C.3.g.** Increase grant appropriation to better meet the demonstrated need and increase grant administration staff concomitantly.

C.4. URBAN FORESTRY AWARENESS

Broad public awareness is critical to generate support for local, state and national funding. Lack of awareness of the DNR urban forestry program limits program participation and integration. The program has strong communications and awareness tools, however, they have not been evaluated for efficiency and effectiveness. The urban forestry coordinators have neither the time nor the training to expand public awareness efforts.

- C.4.a.** As part of the forestry program's public awareness assessment initiative, perform a baseline survey of public awareness of tree benefits, tree care and urban forestry in Wisconsin.
- C.4.b.** Assess existing public awareness tools. Continue and improve those that are the most effective.
- C.4.c.** Develop a comprehensive urban forestry public awareness strategy.
- C.4.d.** Increase use of existing public awareness resources within the department and increase partnerships with other public awareness resources.
- C.4.e.** Explore and implement methods to expand public awareness skill and capability of the Urban Forestry Working Group.
- C.4.f.** Encourage and support urban forestry council public awareness efforts.
- C.4.g.** Continue to build awareness with local elected officials and policy makers to maintain support for existing local programs and improve efforts to build awareness in non-participating communities as a prelude to developing their new local programs.
- C.4.h.** Heighten awareness of urban forestry and program activities among state agencies, state-level policy-makers and legislators.
- C.4.i.** (C.1.c.) Increase DNR awareness of urban forestry, from top managers to field foresters, highlighting the opportunities it provides to accomplish their management and awareness goals. Methods could include articles in Timberline, DNR Digest or e-Digest, presentations at basin, regional or statewide meetings, items for division, region and basin quarterly reports, etc.

C.5. PARTNERSHIPS

Partnerships have proven to be a successful method of increasing the capacity and effectiveness of the program. Without additional partnerships, both internal and external, the demand for assistance will continue to exceed the capacity to supply it. Though coordinators encourage, utilize and facilitate partnerships, they are trained urban foresters and are most efficient at providing direct assistance to clientele. Workload prevents expanding coordinators' efforts at partnership development.

- C.5.a.** Maintain current state-level partnerships.
- C.5.b.** Continue to encourage local productive partnerships to manage urban forest resources.
- C.5.c.** Assess the benefits and workload impacts of potential partnerships prior to entering into agreements.
- C.5.d.** (C.2.g.) Explore and implement methods to increase the bureau of forestry's ability to actively seek out partnerships to increase statewide public, private and nonprofit sector capacity for urban forestry assistance.
- C.5.e.** Explore and implement methods to expand local partnership development capability of the Urban Forestry Working Group.

C.6. SMALL COMMUNITIES

The collective significance of small communities requires that the program search for methods to stimulate small community urban forest management. Major stumbling blocks to small community participation are perceptions of the program's relevance and suitability. Workload constraints and lack of volunteer development skills reduce the urban forestry coordinators ability to actively promote program establishment to non-participating communities.

- C.6.a.** Continue to provide urban forestry assistance to small communities and include them in all mailings and other contacts.
- C.6.b.** Accommodate small community circumstances within existing products and services and include themes relating to small communities.

- C.6.c.** Continue to adjust the urban forestry grant program to stimulate small community participation.
- C.6.d.** Analyze small community characteristics to determine whether there is a point below which tree resource management is not practical. Use this information to prioritize proactive efforts and don't market specifically to communities where urban forestry program development may be impractical.
- C.6.e.** Explore and implement methods to expand small community involvement capability of the Urban Forestry Working Group.

D. FUTURE URBAN FORESTRY ASSISTANCE ROLES

The DNR is and should remain the leader in advocating for Wisconsin's urban forest resource. The urban forestry working group alone cannot fulfill the current and expanding demand for assistance, so increasing capacity of others to provide urban forestry assistance is a more effective role than being the sole provider. There are regional differences in internal and external resources that demand different roles for individual urban forestry coordinators.

- D.1.** Provide leadership in managing the state's urban forests by:
 - a. Directing state and regional scale urban forest assessment and resource goal development
 - b. Coordinating state and regional activities that further the program's strategic goals
 - c. Expanding internal and external resources to meet current and future demand for direct services.
 - d. Providing direct urban forestry assistance on program development to local governments and nonprofit organizations, according to DNR service guidelines, where other resources are not available, practical or advisable.
- D.2.** Expand the role of the urban forestry working group as coordinator and reduce its role in performing non-urban forestry functions. These functions should be identified in the revised strategic and implementation plans and changes incorporated into revised position descriptions if appropriate.

E. NEW URBAN FORESTRY STRATEGIC GOALS

The team studied the existing eight strategic goals for the urban forestry assistance program in light of the data gathered and analyzed. The team found that most of the goals are still valid, however, there was one significant omission, and two goals were not significantly different to merit separation.

- E.1.** Replace the existing strategic goals of the Urban Forestry Assistance Program with the following eight goals or "desired states."

The Urban Forest Resource

All Wisconsin communities have an optimal and sustainable urban forest.

Public Awareness

The public understands the importance and value of urban forests and the need for sound ecosystem based forest management in the urban and traditional forest setting.

Active Management

All Wisconsin communities actively manage their urban forest ecosystem for maximum benefit to the people and the environment.

Research & Education

All practitioners are knowledgeable in state-of-the-art urban forest management practices.

Technical Support

Community forest management programs have all necessary technical direction, support and assistance.

Program Support

Community forestry programs have strong financial, governmental and popular support.

Coordination & Cooperation through Partnerships

All who impact the urban forest ecosystem work cooperatively toward sound resource management.

State Plan

A dynamic state plan directs urban forest ecosystem management.

E.2. (B.1.) Engage the Urban Forestry Working Group, the Wisconsin Urban Forestry Council and the Forestry Policy Team to revise the strategic plan for the urban forestry assistance program in 2001.

WISCONSIN'S URBAN FOREST RESOURCE

WHAT IS THE URBAN FOREST?

The urban forest is all of the trees and other vegetation in and around a city, village, or development. In the past it meant tree-lined streets, but it is important to remember that this forest is a complex network of green space, extending beyond property lines and involving many, many different landowners. Besides street easements, an urban forest also includes private landscapes, schoolyards, parks, lakefront and riparian areas, cemeteries, vacant lots, utility rights-of-way, woodlots and anywhere else vegetation can grow in and around a community.

DELINEATING THE URBAN FOREST

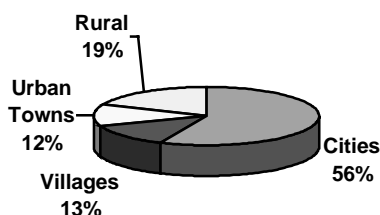
Precisely defining the boundaries of the urban forest is difficult because the transition from urban to rural land is gradual. In addition, there are urban developments in otherwise rural townships, along rivers and particularly around lakes. To establish consistency, the extent of the urban forest is defined using data from "WISCLAND." WISCLAND is the Wisconsin Initiative for Statewide Cooperation on Landscape Analysis and Data, a partnership of public and private organizations seeking to facilitate landscape GIS data development and analysis.

The extent of the urban forest is defined as that area classified as "urban/developed" by WISCLAND and any additional area encompassed by the political boundaries of cities and villages. The WISCLAND classification is based on percent of solid, impervious cover of man-made materials. This will encompass the built environment regardless of location. Most communities also have undeveloped land within their boundaries. This land is included in the delineation of the urban forest because it is either managed as urban forest, as in the case of parks and open space, or development is expected in the long term.

FOREST COMPOSITION

The trees in an urban forest may be native remnants preserved during development, but more often, they are deliberately planted. Species range from native to exotic. Planted trees are frequently cultivars – cultivated varieties – of both native and exotic species, with each cultivar having an identical genetic makeup. Like other forests, the urban forest is not merely composed of trees. Other vegetation, wildlife, soil, water, air, humans and human structures are also a part of the urban forest complex. Gardens, shrubs, annual and perennial plants, and lawns all contribute to the larger forest. Birds, mammals, herptiles, insects, fungi and other microorganisms also play a role. In an urban forest, however, the most influential organisms are humans.

Figure 1. Population distribution in Wisconsin



About 81% of Wisconsin's residents, 4,287,143 people, live in cities, villages and urban townships (those townships with populations greater than 2500). Figure 1. shows the predominantly urban nature of the population in Wisconsin.

Humans plant trees and landscapes. We keep pets and feed wildlife. We build roads, factories, office complexes, strip malls, houses, and parking lots. We prune shrubs and mow lawns. We dig trenches, compact soil, release pollutants into the air and water, and apply fertilizers and pesticides to our yards and

trees. We salt the roads, sidewalks, and driveways during the icy winter months. All of these activities have a profound effect on the urban forest ecosystem.

URBAN FOREST BENEFITS

The urban forest ecosystem provides important environmental, social and economic benefits to Wisconsin. Some examples are shown in table 1.

Table 1. Benefits of the urban forest

Environmental	Social	Economic
Filters air pollutants Reduces storm water runoff Counters urban heat island effect Provides windbreaks Reduces glare	Improves public health Increases community pride Provides recreation and relaxation Beautifies the landscape	Conserves energy Increases property values Attracts business, tourists, residents Provides opportunities for jobs Is a \$1.3 billion Wisconsin industry

These benefits not only improve the immediate quality of life of the vast majority of Wisconsin residents, but the benefits of the urban forest also affect the natural resources throughout the entire state.

Maximizing these benefits is therefore extremely important to the mission of the Department of Natural Resources. For example, improving air and water quality within a community also improves the air and water quality down wind and down stream. Maintaining a high quality of life within a community encourages in-fill development and reduces urban sprawl pressure. And most importantly, an awareness of the urban forest ecosystem can give urban residents, particularly children, their first understanding of the importance and value of natural resources in Wisconsin.

MANAGING THE URBAN FOREST

Urban forests are fragmented and are managed by a wide variety of property owners. Local governments, though owning only 10-15% of the land area, have the greatest ability to manage the urban forest. Police powers give these governments the authority to control certain aspects of private property such as public nuisances and pest management. Their position also allows them to provide education and incentives to private property owners.

Urban forest management is comprised of a wide variety of tasks. These include maintaining inventories; strategic and management planning; developing and enforcing management, protection, landscape and development ordinances; selecting, planting, maintaining and removing trees; expanding public awareness, involvement and education; integrating with other community infrastructure and utilities; and a host of other activities.

In 1997, the USDA Forest Service established a series of five "developmental phases" that categorize communities according to their level of urban forest management. These phases are defined below:

- A community without any known involvement in urban forestry is identified as a non-participatory program.
- A project level program is involved only with activities such as Arbor Day, a tree planting, a one-time grant or any other one-time event or project. These efforts do not lead to a long term investment.
- A formative program is a community that has decided to start an urban forestry program. Criteria may include project phase activities and networking with community leaders, establishing a tree board, involving volunteers, and conducting a basic assessment of the community forest.
- A developmental program is pursuing activities in addition to those in the project and formative phases such as conducting an inventory, developing a management plan or pursuing adoption of urban forestry policy or regulations.
- A sustained program is organized and functional. It has continuity, planning, awareness, support and a budget.

Table 2. Urban forestry management development phase of Wisconsin's communities in 2000.

Development Phase	Number of Communities
Non-participatory	431
Project	92
Formative	74
Developmental	64
Sustained	52

The 2000 classification of urban forestry programs within the 713 cities, villages and urban townships in Wisconsin, as determined by DNR urban foresters, is shown in Table 2.

Assigning each community to a development phase establishes a baseline status of urban forest

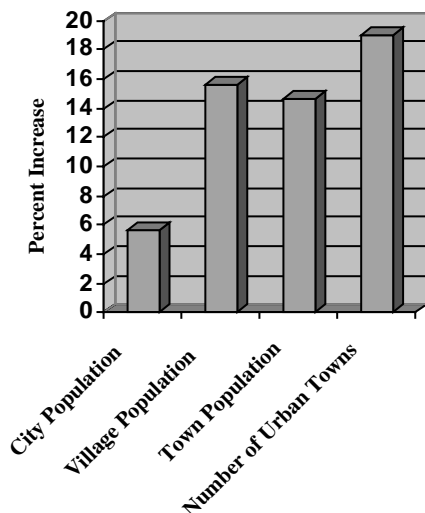
management within the state. At the local level, this information can be used to assess a community's progress toward sustainability. At the regional or state level the information can be used to estimate the amount and type of assistance that the state program needs to provide. For example, the Non-participatory and Project level require considerable encouragement, nurturing, development of political and public support, and initial resource assessment assistance, while Formative through Sustained requires progressively more specialized technical assistance. Changes in community development phase over time can also be used as a performance indicator of assistance program success.

THREATS TO THE URBAN FOREST

There are many things that threaten the urban forest and the benefits it provides. Similar to other resources, some of the threats are natural or biological, but most are related to human activities.

First and foremost is unplanned or poorly designed development. Figure 2 shows the Wisconsin population trends from 1991 to 2000. Not only is population increasing in Wisconsin, development is increasing and the rate of development is also increasing. According to Natural Resources Inventory data, Wisconsin urban built-up land cover increased by 124,400 acres from 1987 to 1992, but from 1992 to 1997, urbanization increased by 271,000 acres, more than double the rate. While two-thirds of the new built-up land between 1987 and 1997 came from agricultural land, which can actually increase tree canopy cover through planting, there were still 108,400 acres of forest land converted to urban built-up land cover. If new or in-fill development takes greenspace conservation into account, i.e. "smart growth", a healthy urban forest can result. If this is not taken into account, existing canopy cover will be removed unnecessarily, remaining trees will suffer construction injury and be lost, and the spaces designed for tree planting will be inadequate, causing long-term management problems and reduced potential benefits. Rapid development also puts a strain on local governments' staff and budget resources, making management of the new and existing urban forest more difficult.

Figure 2. Wisconsin population trends 1991-2000



Not only new construction, but re-construction of businesses, homes, streets and sidewalks are a serious threat to the urban forest cover. Ignorance of tree-friendly design options and proper tree protection methods or the reluctance to carry them out will condemn the trees of even the most well intentioned developer or community engineer.

Inadequate support and improper management by community officials, private property owners or commercial companies can quickly change an appreciating asset into a liability. For example, poor quality or untimely pruning may result in hazardous trees. Improper installation of underground infrastructure can directly kill trees or result in windthrow from damaged roots. Lack of biodiversity may result in epiphytotics such as Dutch elm disease. Lack of planting on rental properties often results in

minimal tree canopy in lower socio-economic neighborhoods further reducing property values and compounding environmental injustice.

Gypsy moth is currently the most notorious biological threat to the urban forest however other pests such as the Asian long-horned beetle, oak wilt, urban deer, and invasive plant species pose current or future threats. Poorly produced, planted and maintained trees as well as an aging tree population, while problems in and of themselves, also exacerbate damage caused by severe weather which arguably has been on the increase.

Finally, the most important long-term threat to the urban forest is lack of research – biological, ecological, social and economic. Without this on-going study, communities will not have the tools to manage the urban forest ecosystem into the future.

THE DNR URBAN FORESTRY ASSISTANCE PROGRAM

HISTORY

DNR Forestry initiated urban forestry assistance with the hiring of a limited term employee in spring of 1990 and formally established the effort with the hiring of a full time state coordinator in November 1990. Forestry hired four district urban forestry coordinators in 1991 and two additional district coordinators in 1992. These seven positions were not new, but were created by reallocating existing forestry positions.

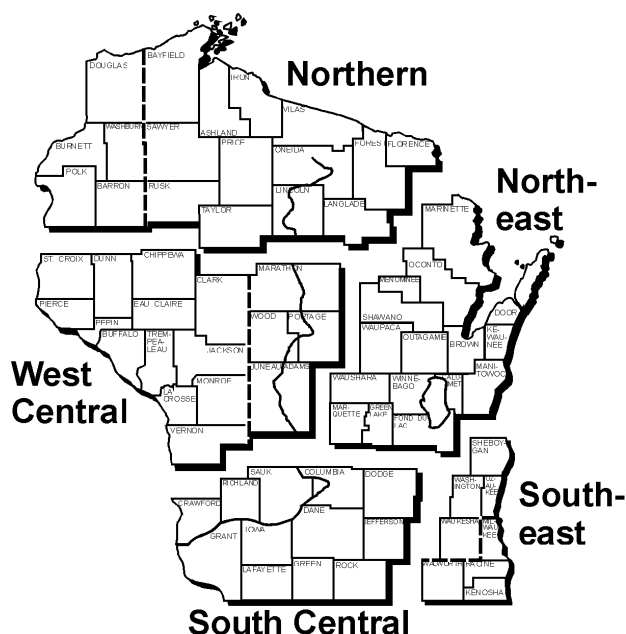


Table 3. Wisconsin DNR urban forestry staff.

Statewide

Dick Rideout
Ryan Baker, LTE
Madison

West Central Region – W ²/₃
Northern Region – W ¹/₃
Cindy Casey
Eau Claire

West Central Region – E ¹/₃
Northern Region – E ²/₃
Don Kissinger
Wausau

South Central Region
David Stephenson
Mark Guthmiller, LTE
Fitchburg

Northeast Region
Tracy Salisbury
Green Bay

Southeast Region - South ¹/₂
Kim Sebastian
Milwaukee

Southeast Region - North ¹/₂
John Van Ells
Hartford

Each of the district (now regional) coordinators was responsible for a specific geographic area of the state and the state coordinator was responsible for policy development. However, each coordinator had individual strengths that would benefit the development of this new program. The coordinators felt a team approach would be the best way to structure its assistance effort, and so, the Urban Forestry Working Group was established.

In 1991 the USDA Forest Service initiated an urban forestry assistance program that provided Wisconsin with an annual grant that has ranged from \$214,000 to \$270,000. This provides funds to support program activities and pass-through grants. The federal program has four standards the state must meet to qualify for funds. The state must have: 1) a state urban forestry coordinator; 2) an urban forestry volunteer coordinator or equivalent capacity; 3) a state urban forestry council; and 4) an urban forestry strategic plan.

To assess the state needs for urban forestry assistance, direct the program's efforts, and comply with the Forest Service program standards, the working group:

- Established the Wisconsin Urban Forestry Council in 1992. The council is a diverse group of citizens and professionals, appointed by the Secretary, to advise the state forester;
- Conducted an urban forestry needs survey of Wisconsin communities in 1992 and;
- Completed a strategic plan for urban forestry assistance in October, 1993

The DNR established a state grant program in 1993, funded annually at \$329,900. In 1998, this was increased to \$529,900. Additionally, a portion of the annual Forest Service grant, ranging from \$90,000 to \$170,000, is passed through each year to the state grant program. By statute, the state funds may only be awarded to cities, villages and tribes. The federal funds, however, may also be used to fund projects by counties, townships or nonprofit organizations.

From 1991 through 1994, the Small Business Administration provided a pass-through grant to the state to fund tree planting on public property using small businesses. During that time the urban forestry working group administered 163 grants to towns, villages, cities, counties, and state agencies totaling \$1.5 million.

In 1995 federal funds were diverted from the grant program to hire a half-time program assistant to help handle the increased state coordinator work load and in 2000 additional federal funds were diverted from the grant program to hire a half-time urban forester to handle the increased work load in the South Central Region. There have been no additional state funds reallocated for urban forestry staff since 1992.

MISSION AND STRATEGIC GOALS

The mission of the DNR's urban forestry assistance program is: "To Encourage and Enable Sound Management of Wisconsin's Urban Forest Ecosystems." Our vision for the future is: "We envision Wisconsin with healthy and sustainable urban forest ecosystems integral to healthy and sustainable communities."

The October 1993 strategic plan for the urban forestry program identified eight goals or "desired states" to guide program delivery:

PUBLIC AWARENESS

The public understands the importance and value of urban forests and the need for sound ecosystem based forest management in the urban and traditional forest setting.

ACTIVE MANAGEMENT

All Wisconsin communities actively manage their urban forest ecosystem for maximum benefit to the people and the environment.

RESEARCH & EDUCATION

All practitioners are knowledgeable in state-of-the-art urban forest management practices.

TECHNICAL SUPPORT

Community forest management programs have all necessary technical direction, support and assistance.

PROGRAM SUPPORT

Community forestry programs have strong financial, governmental and popular support.

PARTNERSHIPS

Partnerships are an integral part of urban forest ecosystem management.

COORDINATION & COOPERATION

All who impact the urban forest ecosystem work cooperatively toward sound resource management.

STATE PLAN

A dynamic state plan directs urban forest ecosystem management.

ASSISTANCE PROVIDED

Assistance is provided both collaboratively by the Urban Forestry Working Group and individually by each coordinator. The assistance provided to accomplish the program's strategic goals is focused in five areas:

TECHNICAL ASSISTANCE

Help communities develop management plans, inventories, ordinances, plant health care and training plans. Over 200 communities and organizations are assisted annually.

EDUCATION AND TRAINING

Develop, facilitate and coordinate programs and materials for forestry professionals, elected officials, planners, developers, school children, volunteers. In addition to supporting local efforts, a statewide conference and a series of 15 training workshops are held annually, providing over 10,000 seat hours of training each year.

RESOURCE DEVELOPMENT

Administer state and federal cost sharing programs and assist in finding and developing alternate sources of funding, staff and support for community programs. Since 1993, the program has awarded 432 grants totaling more than \$4.25 million in state and federal funds.

PUBLIC AWARENESS

Develop awareness and support of the value of urban forests and their need for management through the media, recognition programs, celebrations and events. Examples include support of the Tree City USA and Tree Line USA programs, an annual Arbor Day Poster contest for 5th graders, and local community efforts.

COORDINATION AND COMMUNICATION

Establish urban forestry communication networks, staff the state urban forestry council, liaison to national and state agencies and organizations. An extensive website, a quarterly newsletter, electronic distribution lists, quarterly meetings of the council and work with the Forest Service are examples of these activities.

To provide a sample of the outcomes of the working group's activity, Table 4 illustrates the federal reportable outputs of the Wisconsin Urban Forestry Assistance program for federal fiscal year 1999.

Table 4. 2000 Wisconsin urban forestry assistance program outputs.

Output Measure	Number
1. Urban forestry projects contributing to forest health or function	59
2. Communities receiving assistance w/ project activity only	86
3. Communities w/documented discussions about starting a UF program	21
4. Tree boards newly established	7
5. Communities conducting a basic assessment of tree & NR condition	9
6. Ordinances/public policy developed or revised	12
7. Tree inventories / natural resource assessments completed	17
8. Management plans completed	24
9. Communities Assisted: a. Project	42
b. Formative	55
c. Developmental	38
d. Sustained	32
e. Non-participatory	24
10. Seat hours for workshops/seminars/conferences	10,950

STUDY METHODOLOGY

The study team reviewed the urban forestry program through facilitated meetings and small group sessions. The team used its personal knowledge as well as data gathered from staff, clientele, target audiences and partners to analyze the program.

DATA COLLECTION

The study team identified three categories of data it needed to assess the program:

- An accounting of program accomplishments towards its strategic plan goals.
- An assessment of the program structure and delivery
- An assessment of the urban forest resource

A different data collection method was selected for each category to gather the information required by the team.

PROGRAM ACCOMPLISHMENTS

DNR Urban Forestry staff compiled *Accomplishments by Goal*, a narrative of the Urban Forestry Working Group's accomplishments since program inception as they relate to the goals and objectives of the October 1993 urban forestry strategic plan.

PROGRAM STRUCTURE AND DELIVERY

The team contracted the Bureau of Integrated Science Services to conduct in-depth interviews and focus groups with regional coordinators, program review team members and Wisconsin Urban Forestry Council members, and to conduct a detailed survey of all communities in Wisconsin. This work resulted in:

- *Urban Forestry State and Regional Coordinator Report* - qualitative results from in-depth interviews with the state urban forestry coordinator and the regional urban forestry coordinators.
- *Urban Forestry Council Report* - qualitative results of focus group and interview discussions with members of the Wisconsin Urban Forestry Council.
- *Trees In Your Community* - this 1999 Urban Forestry Survey was sent to 597 communities, 412 of which returned them, a 69% return rate. The quantitative results were summarized and observations noted. The report also included two sub-analyses:
 - *Non Participant Profile* - A summary of 1999 survey results for communities that have not participated in the DNR urban forestry program. To avoid confusion, note that non-participants in the DNR program are defined as those that have not applied for a grant or Tree City USA, compared with the Forest Service Non-participatory development phase where a community has no urban forestry management program of any kind.
 - *Comparing Results: 1992 and 1999 Urban Forestry Surveys* - A comparison of the results from the DNR urban forestry surveys in 1992 and 1999.

URBAN FOREST RESOURCE

The team contracted with Dr. Robert Miller, Professor of Urban Forestry at the University of Wisconsin-Stevens Point to delineate the urban forest in the state and then assess its level of canopy cover. The resulting *Wisconsin Urban Forest Canopy Cover* shows county by county tree canopy cover in developed areas in Wisconsin with graphical depiction of urban areas and development potential within cities and villages.

ANALYSIS

The collected data were subjected to two levels of analysis. The Bureau of Integrated Science Services provided quantitative and qualitative analysis of the data it collected through its survey, interviews and focus groups. The review team then took the data through a series of facilitated exercises to identify commonalities and trends among all the reports. The depth of this urban forestry program review is cutting edge nationally. However, lack of distinct performance measures has made quantifying program success difficult.

STUDY RESULTS

Study results are divided into five sections – State of the Resource, Program Performance, Program Issues, Proposed Urban Forestry Strategic Goals and Future Urban Forestry Assistance Roles. Each section presents study data, an analysis and recommendations. The State of the Resource reports on the findings of the *Wisconsin Urban Forest Canopy Cover* study. The Program Performance section primarily reports the findings of *Accomplishments by Goal* and uses the *Urban Forestry State and Regional Coordinator Report*, the *Urban Forestry Council Report* and the *Trees In Your Community* report to illustrate the accomplishments' outcomes. During data collection and analysis a number of common themes began to emerge. These themes were given further scrutiny and analysis and are reported in the Program Issues section. The program issues are the basis for most of the team recommendations. The Strategic Goals and Assistance Roles sections resulted from facilitated team analysis.

Be aware that some of the findings, such as the data from the survey and canopy assessment, are quantitative in nature, while other findings, such as the results of the focus groups and in-depth interviews, are qualitative in nature reflecting widely held impressions or opinions.

A. STATE OF THE RESOURCE

The study determined that there are about 1.7 million acres of urban forest in Wisconsin, or 4.7% of the state's land area. Figure 3. depicts the distribution of that urban forest throughout the state. As expected, the greatest concentration of urban forest is in the southeast third of the state, however there are pockets of urban forest throughout the state. Most of these are focused around large communities, but it is also significant to note rural areas, such as the far north central, where development is expanding and changing forest management from rural to urban.

The urban forest's potential environmental, social and economic benefits are dependent on the extent, condition, composition and structure of the forest.

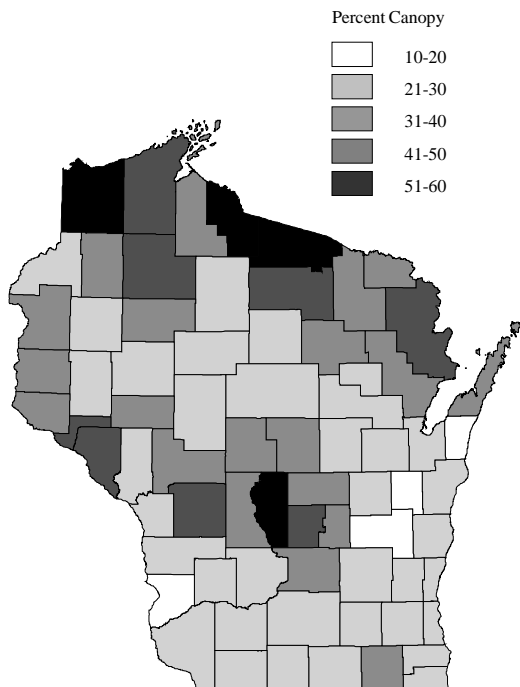


Figure 4. Community canopy cover by county.

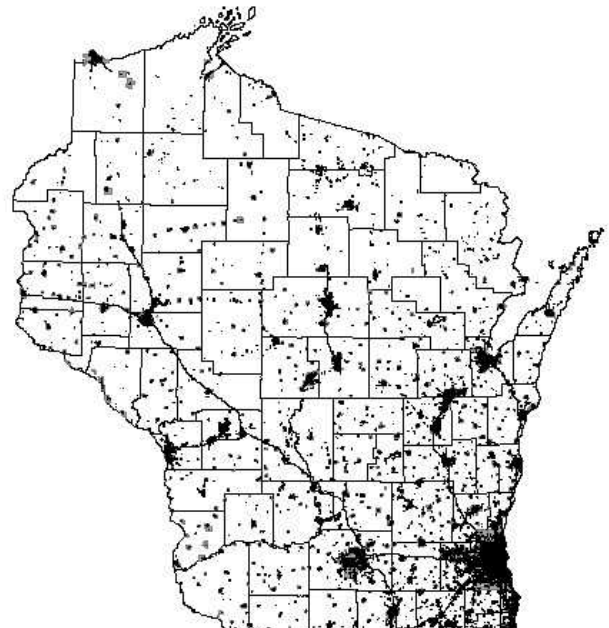


Figure 3. Distribution of urban forest in Wisconsin.

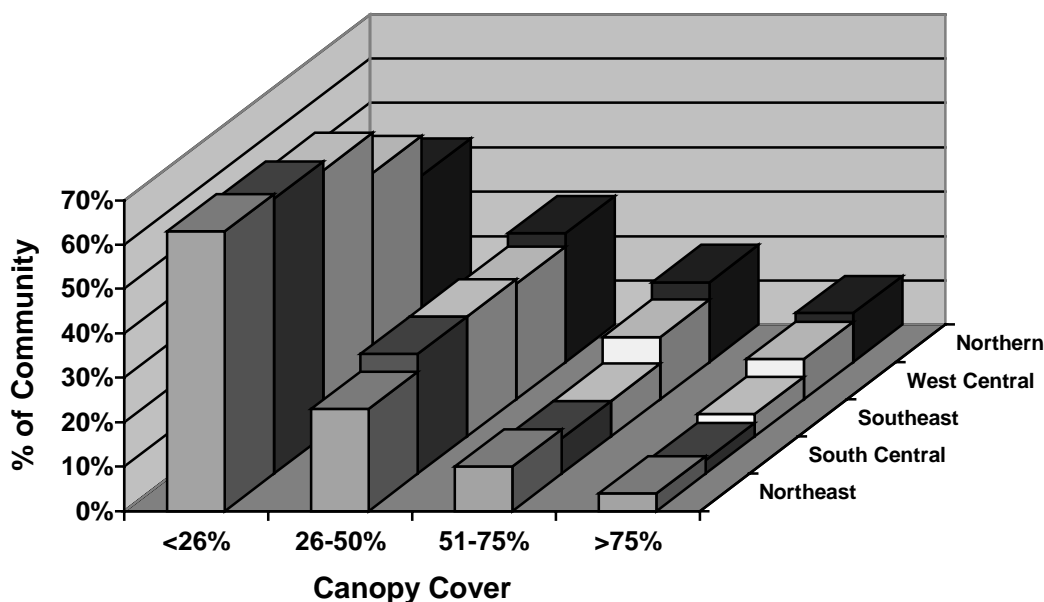
These qualities, in turn, are dependent on the natural vegetation that is preserved during development, the extent and quality of the space that is reserved for vegetation after development and finally on planting and management activities. One of the primary criteria used to measure the capacity of the urban forest to provide benefits is canopy cover, i.e. the extent to which the tree crowns shade the surface. In general, the greater the canopy cover, the greater the benefit provided by the urban forest.

In Wisconsin, the average percent canopy cover for developed areas statewide is 29%. Figure 4. illustrates the difference in urban canopy cover throughout the state. Canopy cover in some parts of the state is more a reflection of the region's natural vegetation patterns than of deliberate tree planting

and management activity by local governments. Wisconsin's Northern Region, for example, averages 38% canopy cover for its developed areas, while the South Central Region averages 26%, yet comparatively few communities in the Northern Region have active tree programs.

The amount of canopy within a community varies depending on land use, stand density, age and species composition as well as tree planting and management patterns. This variation also differs among the state's regions. Figure 5. illustrates that within communities, the majority of the land area has 25% or less tree canopy cover and very little area with greater than 75% cover. It also illustrates that as you move generally from southeast to northwest in the state, the percent of the community with little canopy decreases and the percent of the community with heavy canopy increases, again a reflection of the natural vegetation pattern variation of the regions. This clearly demonstrates that urban forest is part of a natural continuum and not isolated by a municipal boundary.

Figure 5. Distribution of Canopy Cover Within Wisconsin Communities by Region



Conclusions

Despite what we now know about the current canopy cover, goals for the urban forest resource are not well defined. Not only is the optimal canopy cover unknown, canopy cover only addresses one aspect of the resource, ignoring characteristics such as biodiversity, age distribution, forest structure and health. Ideally, canopy cover goals should also be consistent with maintaining the health of — or minimizing further disruption to — the larger, surrounding ecosystem. Local governments have a key role in affecting regional ecosystem health issues such as fragmentation, habitat loss, invasive plant and pest species, watershed management, air quality, etc. It will be critical for governments to have quantitative information to implement green solutions offered by the urban forest. To achieve this, more data on the urban forest composition is necessary to establish appropriate goals for the resource.

Recommendations

- A.1.** Expand the characterization of the urban forest beyond just canopy cover, and use the information to develop resource-based goals for communities in each of the various geographic and demographic areas of the state.
- A.2.** Promote the use of resource-based goals to local governments, environmental and service groups, builders and developers, urban property owners and residents.

B. PROGRAM PERFORMANCE

In 1993 the urban forestry program completed a strategic plan intended to direct its efforts in providing urban forestry assistance in Wisconsin. The plan laid out eight long-term goals, each with various objectives to help reach the goal. The study team assessed how well the program met the plan's objectives and whether the accomplishments produced an outcome that contributed to meeting program goals.

PROGRAM ACCOMPLISHMENTS

The following are the eight strategic goals and their objectives, and the program's performance.

GOAL: PUBLIC AWARENESS - The public understands the importance and value of urban forests and the need for sound ecosystem based forest management in the urban and traditional forest setting.

Objective: *Identify audiences, their awareness and their educational needs.*

Accomplishments

- Coordinators established and maintain a database of official contacts in each community.
- A statewide survey in 1992 gathered information on urban forest management and needs.

Unmet objectives:

- There has been no statewide survey to identify the awareness and educational needs of the various "general publics."

Objective: *Develop and implement a public information transfer system.*

Accomplishments

- Coordinators use bureau and region public affairs managers to provide press releases to all print and electronic media.
- Some coordinators have regular newspaper columns, others have been guests on radio and TV talk shows and newscasts.
- Coordinators regularly staff urban forestry displays at state fair and regional fairs and expositions.
- The program developed a number of public information publications, a quarterly newsletter and an extensive website.
- The team has purchased over 50 thousand information brochures and bulletins for public distribution. Coordinators spend considerable time answering tree questions from the general public.
- The urban forestry grant rating criteria favor public involvement and public awareness projects. This has stimulated a variety of local public information projects that have statewide impact.

Unmet objectives:

- There is no formal, systematic urban forestry public information transfer system.

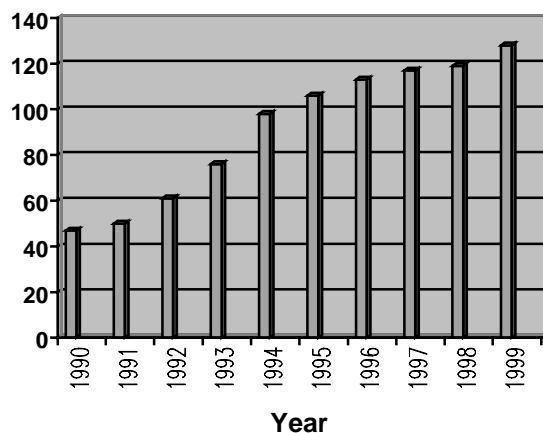


Figure 6. Wisconsin Tree City USA communities by year.

The number of Tree Cities has nearly tripled since program inception. Most believe the number of Tree City USA's, with their Arbor Day celebrations, flags and entryway street signs, is a good measure of urban forestry awareness.

Objective: *Initiate, expand or adapt public educational programs.*

Accomplishments

The program directs:

- The 5th Grade Arbor Day Poster Contest, providing a tree curriculum and a full-color calendar to all elementary schools in the state;
- The Champion Tree program, publishing “Wisconsin’s Champion Trees” which contains educational activities for teachers and students;

Participates in:

- UW Extension's Tree Care Advisor public training program and InfoSource message retrieval systems;
- Project Learning Tree;

Funds:

- a variety of local, regional and statewide public education projects through the urban forestry grant program.

GOAL: ACTIVE MANAGEMENT - All Wisconsin communities actively manage their urban forest ecosystem for maximum benefit to the people and the environment.

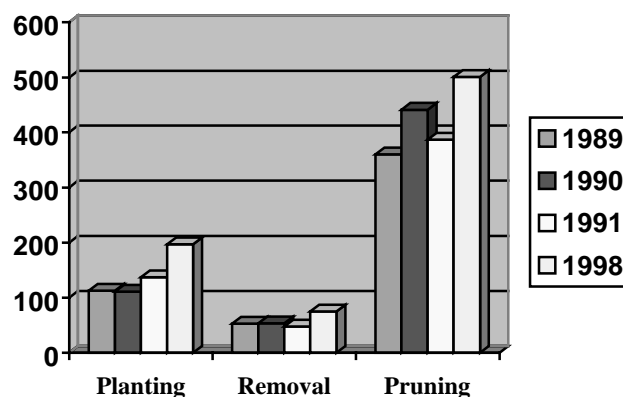
Objective: *Promote establishment and improvement of urban forest management programs.*

Accomplishments

- Coordinators provided direct assistance to 211 communities in 1999.
- Management projects receive a high priority when rating urban forestry grant applications
- The working group also develops, publishes, purchases and distributes articles and publications on planning, development and implementation of local programs.

Figure 7. Tree Management Trends

Communities are planting, removing and pruning more trees in their urban forests. * (Note: City of Milwaukee data was not available in 1989-91 and so to prevent skewing the figures it is not included in the 1998 numbers.)



Objective: *Identify emerging urban forestry issues and recommend management strategies.*

Accomplishments

- Established and supports the Wisconsin Urban Forestry Council to help identify emerging issues.
- Liaisons with the Wisconsin Arborist Association, the Center for Urban Forestry in the Midwest States, the Northeastern Area state urban forestry coordinators association and the Forest Service's urban forestry coordinators to identify issues.
- The urban forestry team meets three times per year and communicates regularly through e-mail, phone and conference call to identify issues and determine management strategies.

Objective: *Integrate urban and rural forestry issues and related urban environmental issues into urban forest management.*

Accomplishments

- Regional coordinators are members of regional and basin teams which address integrated issues.
- Two of the coordinators have both urban and rural forestry responsibilities.
- The state coordinator has participated in interdisciplinary teams such as the Land Use Financial Assistance Team, and has provided assistance to other department efforts.

Unmet objectives

- Integration has not been addressed in a systematic manner to date.

GOAL: RESEARCH & EDUCATION - All practitioners are knowledgeable in state-of-the-art urban forest management practices.

Objective: *Stimulate and support needed urban forestry research.*

Accomplishments

- Funded two projects on urban resource assessment with the UW-Madison and the UW-Stevens Point and an additional project is in development.
- Team members have supported state and regional studies on oak wilt management and ash yellows occurrence.
- The state coordinator serves on the advisory committee for the UW-Madison Department of Horticulture and an ad hoc committee of the Wisconsin Arborist Association to develop support for UW faculty.

Unmet objectives

- The program has not been able to gain support for use of DNR Forestry Account funds to support urban forestry research.

Objective: *Develop and implement an urban forestry technology transfer system to disseminate research results, share management success and identify new research needs.*

Accomplishments

- A technology transfer system was developed and implemented with four major components –
 1. *Wisconsin Urban & Community Forests* quarterly newsletter
 2. DNR urban forestry website
 3. Annual urban forestry workshop series
 4. Annual urban forestry conference.
- The working group developed or purchased a variety of resources to address specific technical issues.
- The state coordinator serves on the Technology Transfer advisory committee for the Forest Service's Center for Urban Forestry in the Midwestern States.

“(The newsletter is) one of the documents that I never throw away. I always refer to it, make copies for others.”

- *Urban Forestry Council Report*

Objective: *Increase the quality of the urban forestry and related work forces.*

Accomplishments

- The newsletter has a circulation of 5,000.
- There are 2000 hits monthly on the website.
- Between 400 and 600 participants attend the workshops annually.
- Over 500 participants attend the annual conference.
- The workshops have stimulated communities and agencies to contract for additional staff training.
- Technology transfer is favored in the urban forestry grant rating criteria resulting in a variety of valuable, locally produced resources with statewide importance.

Unmet objectives

- A performance measure to assess the actual change in workforce quality resulting from the program's actions has not been developed.

GOAL: TECHNICAL SUPPORT - Community forest management programs have all necessary technical direction, support and assistance.

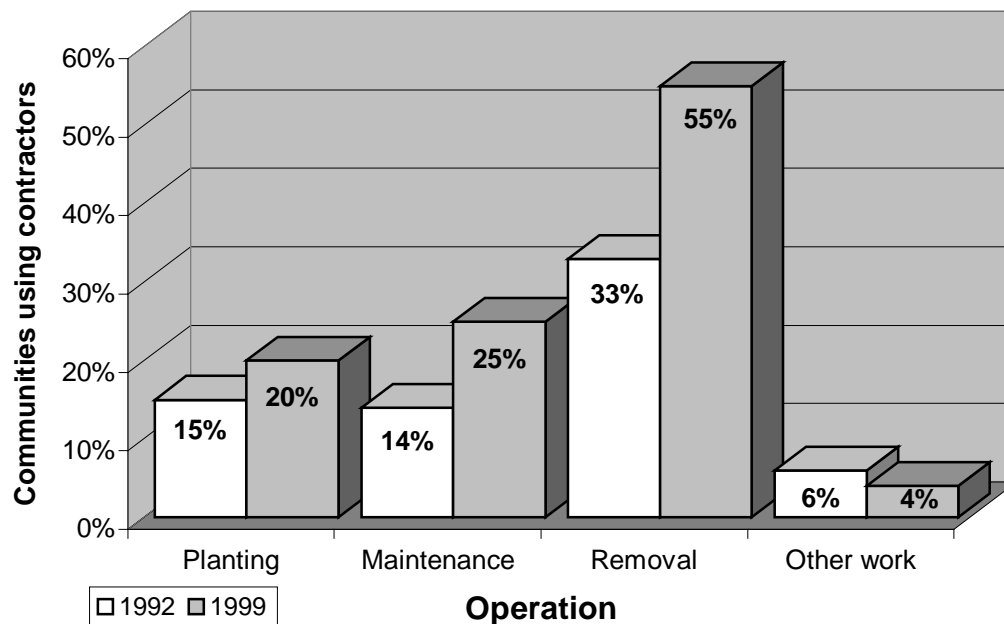
Objective: *Stimulate the development and use of qualified professionals and personnel.*

Accomplishments

- The working group developed and maintains an urban forestry consultant directory which lists companies, services offered and locations served.
- The working group authored and distributes "Guidelines for Working With Consultants," and "Developing Tree Purchase and Planting Specifications" and distributes "A Guide to Certified Arborists in Wisconsin" and "Wisconsin Nursery Stock Source Guide," to assist communities, nonprofits and individuals in engaging qualified contractors.
- A consultant is contracted to instruct the urban forestry workshops which has increased private-sector training opportunities for communities.
- The urban forestry grant application process was altered to identify community needs before the application deadline, so there is time for consultants to assist applicants in project development.

Figure 8. Operations performed by contractors

The number of communities using contractors for tree management operations has increased since 1992.



Objective: *Assist communities in urban forest assessment and management planning.*

Accomplishments

- The coordinators provide one-on-one consulting and publications on planning, assessment and inventories.
- Grant rating strongly favors these types of projects and many inventories, strategic plans and management plans have resulted.
- Resource assessment projects underway with the UW will establish statewide, science-based recommendations and goals for both state and local urban forest resource planning.

GOAL: PROGRAM SUPPORT - Community forestry programs have strong financial, governmental and popular support.

Objective: *Develop and maintain an integrated state assistance program.*

Accomplishments

- Forestry established the urban forestry working group with one state coordinator and six regional coordinators, all funded with hard state dollars.
- The working group functions as a team and provides technical, educational, financial and public awareness support to local governments and other groups.

Unmet objectives

- Funds for the coordinators' supplies, equipment, services and travel are still primarily federal. Attempts to convert these support funds to hard state dollars have been unsuccessful to date.

Objective: *Provide grants to stimulate increased capacity for urban forest management.*

Accomplishments

- The legislature established a state funded urban forestry grant program in 1993 which is currently funded annually at \$529,900.
- On average, \$150,000 of Wisconsin's federal urban forestry grant is passed through to the state grant program.
- The application rating criteria favor projects that increase urban forest management capacity.
- A total of 432 grants have been awarded to date totaling \$4.25 million.
- The program awarded 166 Small Business Administration tree planting grants, totaling \$1.5 million, from 1991 through 1994.

Unmet objectives

- Participation needs improvement. Only one-third of Wisconsin communities have ever applied for an urban forestry grant.

Table 5: Size of Community Tree Budgets - Given the maximum grant for the urban forestry program is \$25,000, it's clear that the grant program has the most impact on smaller communities, those with a population of less than 10,000 people. In these communities, such a grant could well equal the overall forestry budget.

Population	# of communities		Tree Management Budget		
	responding	with budgets	Minimum	Maximum	Median
Less than 500	78	2	\$300	\$1 000	\$650
500 – 999	86	21	\$2	\$15 000	\$2 000
1000 – 4 999	151	90	\$300	\$102 038	\$5 600
5 000 – 9 999	34	23	\$750	\$140 000	\$25 000
10 000 – 49 999	44	36	\$5 000	\$586 000	\$63 014
50 000 or more	10	10	\$20 000	\$11 542 903	\$486 000

Objective: *Develop and promote creative funding mechanisms.*

Accomplishments

- Coordinators promote creative ideas from around the country through newsletter articles and direct consulting.

Unmet objectives

- The program has not developed any new funding mechanisms.

Objective: *Promote strong legislative support for urban forest management.*

Accomplishments

- Regional coordinators are frequent guests at city council and tree board meetings where they promote the concept of urban forest management.
- The program uses Tree City USA and Tree Line USA extensively to promote urban forestry to policy makers.
- The urban forestry council has been recruited to communicate with their legislators on key issues.
- The state coordinator has assisted the Forest Service with visits to congressional staff to support urban forestry legislation.

“Maybe they’re on a Tree Board, maybe they’re the major players in the community. Ten years ago, what did urban forestry or tree management mean to them? Zippo. On a scale of one to ten, they were at a zero and today they are a nine. Now that’s what the urban forestry program has done.”

– Urban Forestry Council Report

GOAL: PARTNERSHIPS - Partnerships are an integral part of urban forest ecosystem management.

Objective: *Create opportunities for volunteerism in urban forestry.*

Accomplishments

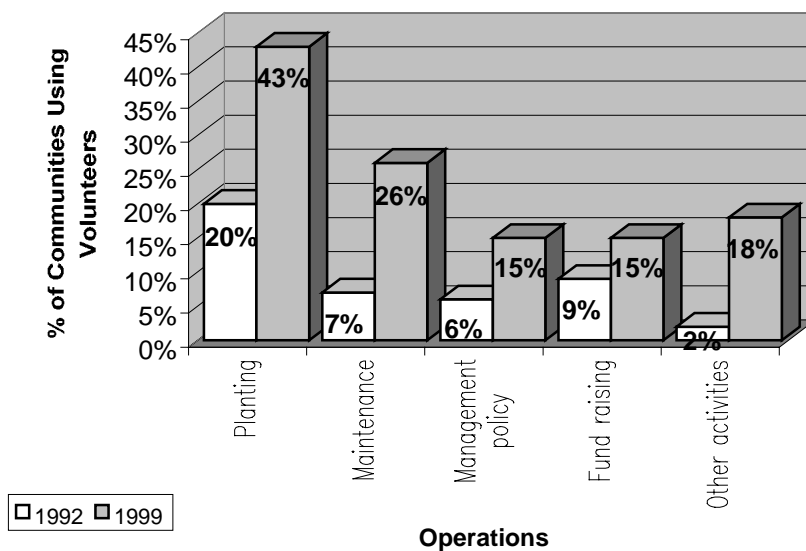
- Regional coordinators routinely work with volunteer groups to address urban forestry needs including tree board development, consultation with nonprofit organizations and work with schools.
- The newsletter runs a regular column article on volunteerism.
- The grant rating criteria encourage volunteerism.
- Federally funded grants may be provided to nonprofit organizations and a variety of volunteer support projects have resulted.

Unmet objectives

- The program has not been successful in changing the statutes to allow state dollars to fund grants to nonprofit organizations.

Figure 9. Operations Performed by Volunteers

Use of volunteers in urban forestry has dramatically increased since the program began.



Objective: *Promote and facilitate partnerships in urban forest management.*

Accomplishments

- Coordinators promote internal partnerships within community government and external partnerships with business, nonprofits and other communities through direct consultation and published material.
- The working group also achieves many of its own functions through partnerships such as the annual conference conducted through a partnership with the Wisconsin Arborist Association. The Wisconsin Park & Recreation Association, Wisconsin Nursery Association, Wisconsin Chapter of the American Society of Landscape Architects and the Wisconsin Landscape Contractors Association have also been partners in this effort.
- The Wisconsin Urban Forestry Council is based on partnership between the DNR and interested and affected groups and individuals.
- The grant criteria favor projects with partnerships.

GOAL: COORDINATION AND COOPERATION - All who impact the urban forest ecosystem work cooperatively toward sound resource management.

Objective: *Coordinate intra-agency, inter-agency and inter-organizational efforts.*

Accomplishments

- This is one of the Wisconsin Urban Forestry Council's four stated purposes. Success has been limited, but efforts are improving.
- The team works to improve intra-agency cooperation by providing technical and policy assistance on issues such as oak wilt pruning, facility landscaping, storm response, urban air and water quality, and land use.
- Inter-agency efforts have included technical and administrative assistance to the departments of Administration, Agriculture Trade and Consumer Protection, Corrections, and Transportation, as well as University Extension and various UW campuses.

Objective: *Reach out to uninvolved groups and work cooperatively to build consensus among potentially adversarial groups.*

Accomplishments

- Program support for council efforts has resulted in recruiting active members from the Wisconsin Builders Association and the Department of Transportation.
- The program successfully connected with over 100 civil engineers through a trees and construction workshop and an "Urban Forestry for Engineers" short course developed with UW Engineering.

Unmet objectives

- The council recruited two minority members, but it has not been able to encourage their participation.

Coordinators believe they could be increasing their outreach/partnerships to:

- Uninvolved communities
- Nursery industry
- Public utilities
- Real estate developers
- Home building industry
- Extension
- Other government agencies
- Urban forestry council
- Universities

- Urban Forestry State and Regional Coordinator
Report

Objective: *Enhance communication among all groups.*

Accomplishments

- The urban forestry council currently has 23 members representing a broad range of groups and interests. The membership limit of 21 was removed in 1997 to allow for more groups to be included.
- The newsletter is sent free of charge to at least one representative of every Wisconsin city and village, to members of the Wisconsin Arborist Assn., Wisconsin Park & Recreation Assn., Wisconsin chap. of the American Society of Landscape Architects, Wisconsin Landscape Contractors Assn. and Wisconsin Nursery Assn., to UW Extension offices statewide, state urban forestry coordinators nationwide and to any other interested party.

GOAL: STRATEGIC PLAN - A dynamic state plan directs urban forest ecosystem management.

Objective: *Establish a baseline assessment of the urban forest resource and the practice of urban forestry.*

Accomplishments

- A survey was conducted in 1992 of all the cities and villages in Wisconsin to assess their urban forestry efforts.
- Two studies were completed and one is under development to assess the statewide urban forest resource and develop goals and objectives for the resource in the future.

Objective: *Prioritize objectives, tasks and actions based on need, and link each with budget, cooperators and desired outcomes.*

Unmet objectives

- A draft implementation plan was produced but never completed

Objective: *Utilize the plan to direct development of state and district annual work plans.*

Accomplishments

- This process was begun in 1998.

Objective: *Evaluate achievement of state and district plan objectives and tasks.*

Accomplishments

- This program review is the first formal evaluation of plan objective accomplishments.

Objective: *Regularly reassess the urban forest resource and its management practices and update the plan to reflect current needs.*

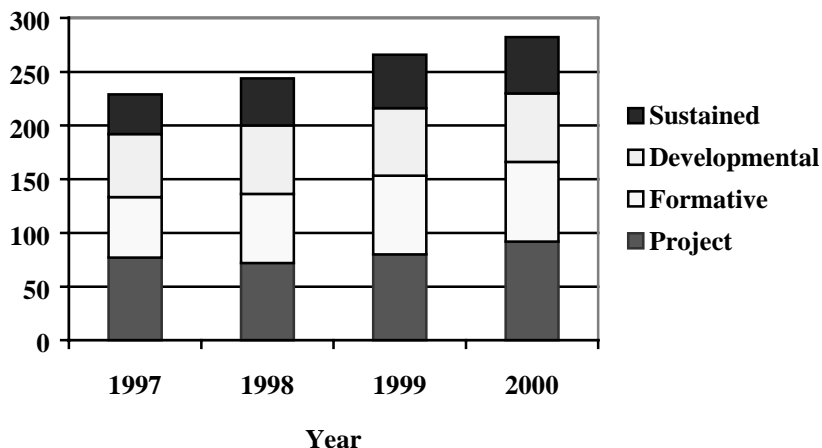
Unmet objectives

- This program review is the first reassessment of community urban forestry practices

PROGRAM OUTCOMES

To get the complete assessment on program performance, you must ask not only what did the program accomplish, but also what is the quality of those accomplishments and what is the result of those accomplishments.

Figure 10. *Urban forestry management development phases of Wisconsin communities from 1997 to 2000*



Though data only goes back to 1997, the trends in the USDA Forest Service urban forestry management development phases can provide an indicator of performance. Figure 10. illustrates the trends in urban forestry management for Wisconsin communities. Note that just over the past four years, the total number of communities involved in urban forestry has risen from 229 to 282 and that the number of urban forestry programs at the “sustained” level has risen from 37 to 52.

When asked to rate the quality of the Wisconsin Urban Forestry Program from one to ten, all participants in the in-depth interviews and focus groups rated the program eight or higher. Communities receiving assistance from coordinators rated the assistance an average of 8.5 where 1 is very poor and 10 is excellent. In March of 2000, the USDA Forest Service brought in a team of state and federal experts from Pennsylvania, Louisiana, Colorado and Minnesota to review Wisconsin's urban forestry assistance. The report concluded that "The Wisconsin DNR has an outstanding Urban Forestry Program" and commended Forestry Division administration and the state and regional coordinators.

Conclusions

Program accomplishments to date have substantively addressed objectives in seven of the eight urban forestry strategic plan goals and work towards the objectives of the eighth goal is in progress. The extent and level of urban forest management in Wisconsin communities have expanded substantially as a result of the accomplishments of the DNR's assistance program.

The Wisconsin program is locally and nationally recognized as providing high quality assistance to local governments and nonprofit organizations and it is held up as a model toward which other states can strive. The urban forestry grant program, newsletter, annual conference, statewide workshop series and the coordinators' personal consultation are held in high esteem by program clientele. Staff are respected statewide as being capable, competent and dedicated to meeting the needs of their communities.

"...We have, without a doubt, one of the best, if not the best, urban forestry programs in the country."

- *Urban Forestry Council Report*

The study as a whole identified far more positive aspects to the urban forestry program than negative. There are, however, opportunities for improvement and to use existing tools for new solutions. The changing trends, issues and needs in urban forestry will require that new objectives replace completed ones and unmet objectives be reassessed for validity.

Recommendations

- B.1.** (E.2) Update the 1993 urban forestry strategic plan in 2001 to reflect recommendations in this report.
- B.2.** Develop a strategic implementation plan with practical performance measures in 2001 to prioritize study recommendations and allow for monitoring of progress toward completion.

C. PROGRAM ISSUES

During data collection and analysis a number of common themes began to emerge. These themes were developed into issues and were given further scrutiny and analysis. The following six issues are organized in a hierarchy from general impact to more specific. It should be noted, however, that in terms of frequency, the urban forestry grant program generated the most data, opinions and discussion.

Each of the six program issues are identified with background and current status. Study findings are shown in figures and tables and in the strengths/concerns table. Again, be aware that some of the findings, such as the data from the survey and canopy assessment, are quantitative in nature, while other findings, such as the results of the focus groups and in-depth interviews, are qualitative in nature reflecting widely-held impressions or opinions.

C.1. PROGRAM STRUCTURE

Urban forestry assistance is delivered by the Urban Forestry Working Group, comprised of the state urban forestry coordinator at the central office and six regional urban forestry coordinators - one each in the Northeast and South Central regions, two in the Southeast region each responsible for half the region, and

two in the West Central region each responsible for part of the West Central and part of the Northern region. Two limited term employees (LTE), one in the central office and one in the South Central region provide program assistance. The state coordinator is supervised by the Forest Lands section chief and the regional coordinators are supervised by either a Basin Leader or a Regional Land Leader. In addition to Forestry staff, certain grant administration tasks are provided by central office staff in the bureaus of Finance and Community Financial Assistance. Southeast region receives some grant administration support from its Regional Community Financial Assistance Specialist.

The Wisconsin Urban Forestry Council, a secretary appointed group of external stakeholders, advises the program. The State Urban Forestry Coordinator is the liaison to this group and the central office LTE provides staff support.

The urban forestry program is base funded by the state Forestry Account which covers salary and fringe for the seven coordinators, \$14,500 for travel and operations, and \$529,900 for grants to cities and villages. Since 1991, Wisconsin DNR has received an annual urban and community forestry assistance grant from the USDA Forest Service. This allotment averages \$230,000 per year. Federal funds are used for hiring the LTEs, travel, operations, support of the Wisconsin Urban Forestry Council, program activities, indirect costs and pass-through grants to local governments and nonprofit organizations.

Statewide policy development and implementation is managed with a team approach through the Urban Forestry Working Group. The state coordinator advocates for the program, manages state and federal budgets and is the liaison between the team and state, regional and national agencies and groups. The regional coordinators provide direct assistance to local governments, nonprofit organizations, other interest groups and the public.

Study Findings: Program Structure	
Strengths	Concerns
<ul style="list-style-type: none"> • The program is regarded by other states and the USDA Forest Service as one of the best in the country. • Compared to many other states, Wisconsin's program is better supported politically and financially. • The Urban Forestry Working Group is a cohesive team of professional, responsible and responsive staff who respect each other and value each others' talents. • The team approach plays to the various strengths of the members producing a synergistic effect. • The Urban Forestry Council plays an active role in maintaining the quality of the program. 	<ul style="list-style-type: none"> • Using federal funds for limited term employees, travel and operations diverts them from program activities and pass through grants. • Many of the regional coordinators' supervisors and members of the Forestry Policy Team know very little about the urban forestry program. • There is a disconnect between the urban forestry council and the regional coordinators.

Analysis

The team structure is designed to support statewide assistance. The approach allows the program to spread the individual talents of the coordinators statewide while also supporting and improving regional assistance delivery. Because the team members support one another, they work more efficiently and effectively.

Using federal funding for limited term employees, travel and operations is a concern for two reasons. First, the federal grant is an annual appropriation, which has varied widely from year to year. It could at any time be reduced or eliminated leaving a vacuum in program support. Second, current state statute does not allow state grant funds to be awarded to nonprofit organizations, townships and counties, however federal funds may be used for such grants. Using federal funds for travel, operations and

administrative support reduces the pool of funds available to nonprofits, towns and counties, thereby eliminating funding for some potentially innovative projects.

Urban forestry is a small program that generates little controversy, but it is one with a potentially huge impact on natural resource policy makers – the urban public. It deserves more attention and visibility. Current methods and results of communication between the working group members, their supervisors and the urban forestry council seem to be inconsistent at best. Quarterly reports provided by the regional coordinators may not be read beyond their immediate supervisor and generally, urban forestry topics are not included in regional status reports. Some council members do not feel well enough connected with activities on the ground to adequately advise the program.

Conclusions

- The team structure of the urban forestry assistance program has been successful and continues to work well, improving assistance delivery, and reducing duplication of effort, coordinator isolation and burnout.
- A consistent source of program operations funding is needed. Federal funds are more effectively used for pass-through grants.
- Ineffective communication isolates the urban forestry working group from its internal and external support. This disconnect reduces understanding of urban forestry's value, reduces opportunities for collaboration and integration with other program areas, and places the program in a politically vulnerable position.

Recommendations

C.1.a. Maintain the current program structure with the state and regional coordinators working as a team.

C.1.b. (C.2.c, C.2.d.) Provide adequate state, base-funded operations and program assistance, eliminating reliance on unpredictable federal funds and allowing the federal funds to be better used on program activities and pass-through grants.

C.1.c. (C.4.i.) Improve communication between the urban forestry coordinators, their supervisors, the forestry policy team and DNR administration.

C.1.d. Improve communication between the urban forestry council and the regional coordinators.

C.2. STAFF EFFICIENCY AND EFFECTIVENESS IN PROVIDING ASSISTANCE

The urban forestry program provides technical, educational and financial assistance to local governments, non-government organizations and others. The program also assesses the urban forest resource, promotes the practice of urban forestry, encourages development of private assistance and facilitates information exchange and policy development on a statewide basis.

Technical assistance includes consultation and guidance, referrals, and on-site assistance with program establishment, management plan development, inventories, ordinances, tree planting and maintenance. Educational efforts include local assistance with staff training, public and policy-maker presentations, urban forestry networking and literature distribution. Financial assistance includes cost-share grants and program funding consultation. Promotional efforts include Tree City USA, Tree Line USA, Arbor Day, presentations and news articles. Statewide efforts include resource guides, a quarterly newsletter, practitioner workshops, an annual conference, a website and a 5th grade Arbor Day poster contest.

The state urban forestry coordinator and six regional coordinators are the heart of the program. Though managed as a team effort, each position has specific responsibilities.

The state coordinator is the program advocate and liaison to the Wisconsin Urban Forestry Council, other DNR divisions, state agencies, the legislature, non-governmental organizations and the federal government. He provides direction and coordination for statewide team efforts such as grant management,

the quarterly newsletter, annual conference, annual workshop series, national Arbor Day poster contest, the urban forestry website and the Tree City USA and Tree Line USA programs. He is responsible for statewide partnership development and urban forest resource assessment. Responsibilities also include clerical duties such as grant form revisions, Tree City USA application processing, workshop registration, champion tree record keeping, website updating, meeting support for the urban forestry council, and updating the quarterly newsletter mailing list.

In addition to responsibilities for aspects of statewide program efforts, regional urban forestry coordinators implement regional programs providing direct assistance to local governments, non-government organizations and individuals according to accepted assistance guidelines. The highest priority is resource assessment and management consultation. Public awareness, staff training and local program development and promotion are also priority. Advocating for and nurturing new community programs is a significant aspect of the position. However, the coordinators spend considerable time managing individual grants, from application to reimbursement, doing their own clerical work and answering individual calls from the public.

Study Results: Staff Efficiency and Effectiveness in Providing Assistance	
Strengths	Concerns
<p>Staff Performance and Support:</p> <ul style="list-style-type: none"> • Staff members are greatly respected and appreciated by their customers. • The staff are recognized statewide and nationally for their talent, competence and professionalism. • The staff are dedicated to the profession and regularly work beyond the call of duty, including attending evening and weekend community meetings and celebrations and making public presentations. • Communities have a good relationship with the coordinators and value the consulting and technical assistance. • Information provided is considered credible, up-to-date and high quality. • Communities receiving assistance from coordinators rated the assistance an average of 8.5 where 1 is very poor and 10 is excellent. <p>Assistance Provided/Needed:</p> <ul style="list-style-type: none"> • The program provides strong traditional urban forestry assistance. • The number of communities receiving assistance from DNR urban forestry coordinators increased from 65 in 1991 to 211 in 1999. • Urban forestry grant project management provides an opportunity for coordinators to work closely with communities on technical 	<p>Staff Performance and Support:</p> <ul style="list-style-type: none"> • Staff workload is a major concern of staff and council. The workload is also disparate among regions. South Central and Northeast regions have about twice the workload of grants and active communities per staff member as the other three. • Operations funding for the coordinators is substandard. Current funds per person range from \$0 to \$4,000, averaging \$2,000, compared with the Management and Budget standard of \$6,900 per staff member. Federal funds are diverted away from community grants to make up this difference. • Coordinators have little or no clerical support. • Coordinators do not receive sufficient training needed to maintain technical and administrative proficiency. The Division of Forestry training unit offers no courses on urban forestry topics. Federal funds must be diverted away from community grants to develop training courses. • The financial and administrative aspects of the urban forestry grants require skills and time not efficiently provided by the coordinators. • Responsiveness to new emerging issues such as smart growth is difficult due to work overload. <p>Assistance Provided/Needed</p> <ul style="list-style-type: none"> • Demographics show increasing urban population and urbanized land cover in Wisconsin. • Defining how broad the assistance should be and how far the program should reach is a current challenge. There is frustration among staff with their inability to provide sufficient assistance to existing customers. • Customers expect more assistance as their

<p>issues.</p> <ul style="list-style-type: none"> • Communities rate individual attention from coordinators second only to receiving cash grant assistance. • Customer service is the guiding principle of the program. • The program makes use of quality tools such as the grant program, Tree City USA, workshops, annual conference, and newsletter, which attract communities and provide good incentives to participate. Communities particularly like and use the newsletter. 	<p>programs develop.</p> <ul style="list-style-type: none"> • Reaching the right people and attracting non-participant communities into the program is a difficult, time consuming process. • The working group tries to do everything rather than engaging other DNR, agency and university resources. • The program is weak in areas of marketing, people motivation and volunteer management. • Many customers are unaware of the DNR's urban forestry website. • Service requests from individuals can take a significant amount of the regional coordinators' time.
---	---

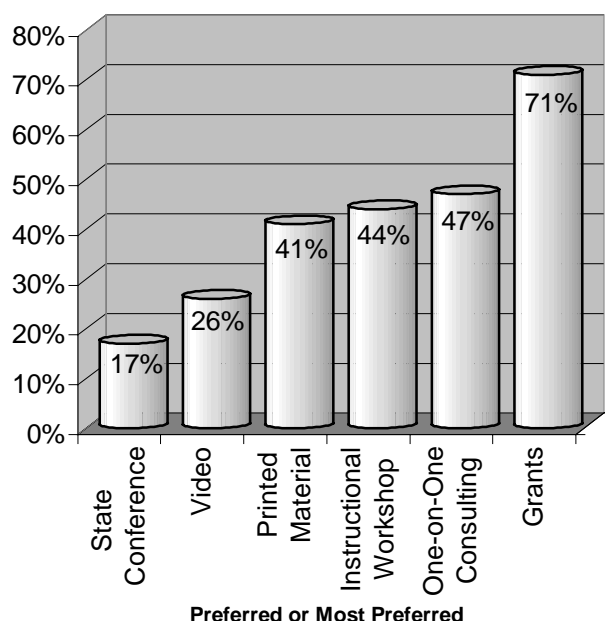


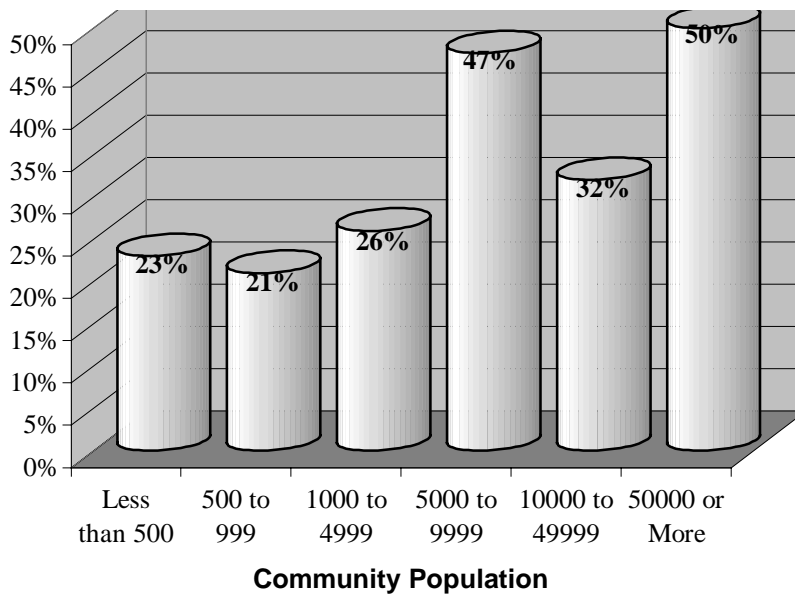
Figure 11. Preferred Assistance Format
Communities by far prefer assistance in the form of grants, but also want personal consulting, training workshops and reference material.

Analysis

The program provides high quality services in the form that is most desired by the clientele – grants, direct consultation, workshops and printed material (see figure 11.). The coordinators are strong advocates for their communities, are highly respected and are viewed as the best source of impartial, science-based information and assistance. This has resulted in a very successful program. However, the demand for urban forestry assistance from new and existing clientele has increased dramatically with the success of the program and will continue to increase given demographic and programmatic trends (see figure 12.). Yet the staffing level has remained constant, clerical and administrative assistance has declined and operations funding has remained far below the Management and Budget standard.

Figure 12. *Further contact requested.*

Of the 403 communities surveyed, 110 requested further service from an urban forestry coordinator.



As urban forestry in Wisconsin evolves, communities with existing programs are looking for highly technical, state-of-the-art information to upgrade their management which requires a highly trained coordinator. Communities that want to start programs need extensive nurturing which requires a responsive and available coordinator. The lack of continuing technical training provided by the DNR training unit will result in coordinators less likely to be able to meet the needs of advanced communities. The lack of time as well as marketing, motivation and volunteer management skills will result in coordinators less likely to meet the needs of newly emerging communities.

The demand for assistance currently well exceeds existing capacity in two regions. The quality of assistance is already suffering in these regions and assistance in all regions is likely to be further jeopardized as program success continues and demand increases. As a result it is imperative that the work the coordinators do perform be the most effective and efficient use of their time. Clerical and non-urban forestry administrative work are the most obvious duties that interfere with providing assistance. Responding to individual citizen requests can also be very time consuming. These obligations allow little opportunity to expand beyond the routine or respond to emerging issues.

Conclusions

- The assistance demand is currently 50% above delivery capacity and demand is only going to increase. If the program is to continue to serve the state's needs, it will have to increase assistance delivery capacity. This can be done by increasing staff, making staff more efficient and effective or developing capacity elsewhere. All three approaches must be implemented.
- Direct assistance is highly valued and should be expanded when possible. This is both effective and most requested by customers. To do this, more regional staff are required and staff need more training and support. The state coordinator needs to be directing his efforts to statewide resource assessment and planning, program support and program management. This will require administrative assistance.
- Other job duties should be examined to determine whether the DNR coordinator is the best position to carry out those activities. Coordinators should not be using their time doing clerical or financial work for which they are overqualified or not trained. There are other DNR resources that have this expertise. These resources should be expanded to provide these services. Existing DNR staff offer

networking possibilities to facilitate community contacts. In addition, partnerships, outsourcing, and enhancing commercial and volunteer efforts are valuable and effective ways to increase assistance capacity. These efforts are already underway, but need to be increased. Unfortunately, this requires time that the coordinators do not have. In addition, developing partnerships requires skills beyond urban forestry technical expertise. A specialist in this area is needed to enhance the existing efforts of the team.

Recommendations

- C.2.a.** Continue to provide direct assistance to local governments and non-government organizations.
- C.2.b.** Support the approved 2001-03 budget decision item to hire 2 additional regional urban forestry coordinators to meet the existing demand for assistance in South Central and Northeast regions and explore the need for additional staff.
- C.2.c.** (C.1.b.) Support the approved 2001-03 budget decision item to increase the operations budget to the appropriate level per coordinator.
- C.2.d.** (C.1.b.) Support the approved 2001-03 budget decision item to hire a full-time, state-funded, central office program assistant allowing the state coordinator to implement study recommendations program management, support and resource assessment and planning.
- C.2.e.** (C.3.c.) Expand appropriate DNR central office and/or regional resources to provide grant administration, clerical and public awareness/information services so regional coordinators may concentrate on providing urban forestry assistance.
- C.2.f.** Identify the most appropriate providers of the full range of urban forestry services, refine the DNR urban forestry working group's prioritized urban forestry assistance guidelines and maintain and strengthen the quality of those services best provided by DNR urban forestry staff.
- C.2.g.** (C.5.d.) Explore and implement methods to increase the bureau of forestry's ability to actively seek out partnerships to increase statewide public, private and nonprofit sector capacity for urban forestry assistance.
- C.2.h.** Incorporate urban forestry related training classes, including technical urban forestry, marketing, people motivation and volunteer management, into the department's forestry training program.

C.3. URBAN FORESTRY GRANT PROGRAM

The DNR administers a 50-50 cost shared urban forestry grant program for cities, villages, towns, counties, tribes and nonprofit organizations. The department annually awards from 40 to 60 grants ranging from \$1,000 to \$25,000. The program is funded annually with \$529,900 of state funds, which by statute may only be awarded to cities, villages and tribes. A portion of Wisconsin's federal Urban and Community Forestry Assistance grant, ranging from \$90,000 to \$170,000, is also used for the program. These funds may be awarded to towns, counties and nonprofit organizations as well as to cities, villages and tribes.

Grant program policy is developed by the urban forestry working group. Administrative policy is established through interaction with the working group and staff in Community Financial Assistance, Auditing, Legal Services and the USDA Forest Service. Individual grants are administered by the regional urban forestry coordinators with assistance from central office specialists in the bureaus of Community Financial Assistance and Finance. The Southeast region also receives assistance from regional Community Financial Assistance specialists.

The grant program's primary focus is to increase and improve local governments' capacity and ability to manage their urban forest resources with the ultimate goal of expanding and improving the state's urban forests. Grant criteria favor planning, management, public awareness, public involvement and partnerships, and are designed so communities and organizations of all sizes can compete equally.

Study Findings: Urban Forestry Grant Program	
Strengths	Concerns
<ul style="list-style-type: none"> • Grants are the top priority assistance preferred by communities. • Grants stimulate over \$1 million in urban forestry projects annually. • Grants provide a "foot in the door" for both DNR and private assistance. • The program provides incentive for governments and organizations to initiate or improve their urban forest management efforts. • Grants give mil tax funds directly back to the communities. • Grant projects stimulate commercial assistance capacity. • Grant application criteria are designed so all can compete on an equal basis regardless of size or program level. • Small communities receive additional rating points to encourage participation. • The program supports innovative projects that otherwise wouldn't be done. • Recipients are very appreciative of the support received from the coordinators during the application, implementation and reimbursement process. • The grant process undergoes annual review and improvement to respond to identified needs. 	<ul style="list-style-type: none"> • On average, there are only enough monies to fund 68% of the grant requests annually. • State monies cannot be used to fund county, town or nonprofit organization projects creating administrative problems for staff and clients. • Despite the fact that the grant program follows a consistent annual cycle, some applicants feel surprised and are unable to meet process deadlines. • Administration problems detract from the program. Coordinators reported spending as much as 30% of their time on non-technical administration of the grants, e.g., cost eligibility, financial reimbursement, regulation compliance, particularly on federally funded grants. • Communities and regional coordinators consider the complexity of the grant application and the administration process to be barrier to participation. • Record keeping requirements are burdensome particularly to small communities and nonprofits with volunteer staff. Some applicants have refused grants as a result. • More grants are applied for by communities that have an urban forestry manager, and these municipalities tend to be larger. • Small communities that have not participated in the grant program believe the grants to be unattainable due to a lack of ability to match and a lack of competitiveness with large communities. • Some small communities do not participate because tree management is not a priority, others because the application appears too demanding, while others lack staff and time to apply for and implement the grant. • Some urban forestry council members question whether the grant program should be a lower priority.

Analysis

The urban forestry grant program is a significant aspect of the urban forestry assistance program. It is the primary tool the coordinators use to directly stimulate urban forest management and promote urban forestry at the local level. Through the project administration and management process, coordinators can educate recipients and promote best management practices. The grants stimulate substantial commercial

involvement – urban forestry consultants, planners, contract urban foresters, tree services, nursery growers and landscape contractors – increasing the overall urban forest management capacity in the state. Grants fund projects that would not otherwise be undertaken and have resulted in products with statewide impact that could not have been accomplished by the DNR alone. The grant program also benefits the department and the state politically, returning the forestry property tax, the “mil tax,” directly to the largest source of tax dollars – communities. The relationships coordinators develop with the recipients provide a positive view of the DNR.

However, there are a number of concerns with the program. Much of the frustration, both internally and externally, centers around the grant process – application, project administration, records management and reimbursement – particularly with federally funded projects. Regional Urban Forestry Coordinators spend an inordinate amount of time on non-project related grant administration activities and the amount of time spent appears to be increasing. There is a concern that the increasing demands on staff in administration of the grants program negatively impacts other urban forestry program responsibilities, including technical assistance, education, partnership development and program management. The administrative complexity and record-keeping requirements are also alienating recipients and discouraging applicants, particularly small communities and nonprofit organizations with limited staff. Municipalities lacking someone to oversee urban forestry management are less likely to apply for grants. Some of the apparent barriers to participation, such as lack of competitiveness with large communities or inability to meet matching requirements, are misperceptions.

Federal program requirements are more rigorous and complex. The restriction against using state funds for town, counties and nonprofits, requires that the more complicated federal funds be awarded to the organizations that are least likely to have experienced staff to handle the grants.

Despite the concerns of grant administration, a grant is still a community’s preferred type of assistance, and there continues to be more than 30% greater demand for grants than there are funds available.

Conclusions

- DNR urban forestry grants are the preferred form of assistance by local governments and nonprofit organizations. They are an extremely valuable teaching and incentive tool for urban forestry resource management. The grant program has greatly expanded urban forest resource management statewide.
- Grant administration is complex and time consuming for both recipients and regional urban forestry coordinators. The regional coordinators are trained urban foresters, not grant managers, accountants or auditors. Non-project related administration of the grants is an inefficient use of coordinators’ time and expertise. It should be shifted to department grants managers. Most of the recipients’ staff are also not trained in grant administration making the complex process difficult to comply with.
- Separate eligibility requirements of state and federal funds contribute to grant administration problems for both the department and the recipient.
- The urban forestry program will need to increase grant administration capacity and increase funding to adequately meet the demands on the grant program.
- Small communities are under-represented in participation in the grants program due to their lack of interest, inadequate staff, lack of resources and misperceptions about the program.

Recommendations

C.3.a. Continue to administer and promote the urban forestry grant program.

C.3.b. Streamline the grant administration process for both the recipient and the department to reduce administrative workload.

C.3.c. (C.2.e.) Shift non-project related grant administration to community financial assistance.

C.3.d. Assess grant administration workload and increase community financial assistance staff appropriately to cover increased administration of urban forestry grants.

- C.3.e.** Support the legislative initiative in the 2001-03 budget to change Wis. Stat. 23.097 to allow state urban forestry grant monies to fund county, town and nonprofit projects thereby reducing the administrative complexity of separate eligibility.
- C.3.f.** Continue to eliminate real and perceived impediments to participation of small communities and nonprofit organizations.
- C.3.g.** Increase grant appropriation to better meet the demonstrated need and increase grant administration staff concomitantly.

C.4. URBAN FORESTRY AWARENESS

The urban forest is a resource that directly affects over 80% of Wisconsin's population – those 4.28 million residents who live in Wisconsin's cities, villages and urban townships – yet most people are unaware of how integral the urban forest is to their lives.

Political reality dictates that broad awareness is critical to stimulate support for funding local, state and national programs. Unknown programs and those with few constituents are the easiest to cut during budget deliberations. In the past, urban trees were considered as mere amenities or not considered at all. It is now known that the trees make up an urban forest which has profound effects on a community's environment and economy and on the lives of its residents. As is often the case, awareness of this among the public and policy-makers has lagged behind the science. The urban forestry program and its advisors have identified public and policy-maker awareness of the value of the resource, and the need to expand, improve and manage it, as a fundamental prerequisite to achieving the department's goals for the resource.

Public awareness is one of the eight overall goals that guides the program. Currently, the statewide public awareness tools for the program are the *Wisconsin Urban & Community Forests* quarterly newsletter, the national Tree City USA and Tree Line USA programs, the Champion Tree program and the 5th grade Arbor Day Poster Contest and annual poster contest calendar. Regional efforts include occasional newspaper columns, press releases, TV and radio spots, exposition displays and public presentations. Answering tree questions, a regular part of all coordinators' activities, reaches individuals with tree care awareness, which starts the process of urban forest management awareness. In addition to these department efforts, the Wisconsin Urban Forestry Council has identified public awareness as a major role for it to play and has begun sponsoring displays and events. Local public awareness efforts are emphasized and supported by the urban forestry grant program.

Each region and the central office has a Public Affairs Manager. These individuals have been used for urban forestry awareness efforts, however they are generally underutilized.

Study Findings: Urban Forestry Awareness	
Strengths	Concerns
<ul style="list-style-type: none"> • Urban forestry assistance is a highly regarded, much appreciated program. This success offers an opportunity for the Department to connect with the public on urban resource management, smart growth and urban environmental quality issues. • <i>Wisconsin Urban & Community Forests</i> newsletter reaches over 5000 community leaders and managers, tree, landscape and nursery professionals, students, educators, volunteers and citizen activists. • Wisconsin ranks third in the nation with 128 Tree City USA communities, compared with 47 in 1990. Every year, each Tree City 	<ul style="list-style-type: none"> • There is no baseline assessment of urban forestry awareness in the "general public." • Qualitative data show that urban forestry and the DNR program are not well known among DNR managers, legislators, policy makers, communities and the public in general. • Only 36% of small communities were aware of <i>Wisconsin Urban & Community Forests</i> newsletter compared to 100% of large communities despite the newsletter being sent to all communities. • Only 60 to 70 schools participate in the Arbor Day poster contest. • The program does not have a comprehensive

<p>officially proclaims Arbor Day and holds a public celebration.</p> <ul style="list-style-type: none"> • The 2000 TCUSA recognition banquet attracted over 360 community leaders and provided photos and news releases to 94 communities. • The Arbor Day Poster Contest curriculum packet and Arbor Day calendar reach over 2100 schools annually. • The urban forestry council has recently identified public awareness as one of its major roles, and has begun sponsoring events and displays. • The grant award process favors projects having public information and involvement activities. • Over 175,000 brochures and publications have been distributed to the public at service centers, events and by mail. • A regularly maintained website provides 24-hour access to program information and publications. The top 12 pages receive nearly 2000 hits per month. • Coordinators regularly make presentations and answer questions on a local, regional, state and national level. 	<p>public awareness strategy.</p> <ul style="list-style-type: none"> • The working group collectively lacks specialized public awareness skills such as marketing, communication and media relations. • There is minimal outreach to under-served and minority populations. • DNR foresters are missing an opportunity to connect with the public through urban forestry.
---	--

Analysis

The program has a number of communication tools that reach a variety of audiences. The newsletter is the highest ranked by communities, though this reaches primarily professionals and interested individuals. The Tree City USA program is the most publicly visible and the DNR has begun to further capitalize on this with the advent of the biennial recognition banquet. The urban forestry council's efforts are expanding the program's capabilities and the audiences it reaches, though significant working group involvement is still required. The website has potential for easy, efficient access to program information and publications.

On the regional and local level, coordinators are constantly involved in public awareness efforts, directly through presentations and individual consulting, and indirectly through assistance with grant projects. Understanding that public awareness is a local issue, the grant program favors projects that have awareness components in them. This greatly expands the program's capacity to reach out to new audiences.

Despite the program's many activities, there is no comprehensive public awareness plan to direct the efforts in a systematic, prioritized way. Anecdotal information indicates a general lack of awareness of urban forestry in the public, and survey data show there is still a significant lack of awareness of the DNR urban forestry program at the state and local government level. Over the tenure of the program, urban forest management has increased dramatically, evidenced by the increase of Tree City USAs from 47 to 128. Could this be attributed to improved public awareness or are technical and financial assistance the primary factors? Without baseline data or performance measures, there is no way to assess the efficiency or effectiveness of the program's public awareness efforts or the contribution they play in reaching management goals.

The urban forestry program's success, its ecosystem-based approach and its link to the majority of the populace offers new opportunities for the Division of Forestry and the department to affirm resource-based planning and management to more communities and citizens around the state. The urban forest is

directly linked to air quality, water quality, wildlife and land use. It offers not only this connection to the urban ecosystem, but also to the people who both use the state's other natural resources and elect the officials that develop the resource policy. Currently the department is not taking advantage of these opportunities for integration.

The major obstacle preventing the coordinators from expanding public awareness efforts is the lack of time and specific public awareness skills. However, other internal and external resources are available that could be utilized.

Conclusions

- Broad public awareness is critical to generate support for local, state and national funding to expand, enhance and manage the urban forest resource.
- Lack of awareness of the DNR urban forestry program among community officials, citizen activists, potential partners and under-served groups limits program participation.
- The program has strong communications and awareness tools, however, they have not been evaluated for efficiency and effectiveness and they are not integrated into a systematic plan to achieve specific goals.
- The department is missing opportunities to integrate urban forestry with other resource and environmental management programs and to utilize urban forestry's success to reach urban populations.
- Despite the need for expanded public awareness efforts, the urban forestry coordinators have neither the time nor the training to carry it out.

Recommendations

- C.4.a.** As part of the forestry program's public awareness assessment initiative, perform a baseline survey of public awareness of tree benefits, tree care and urban forestry in Wisconsin.
- C.4.b.** Assess existing public awareness tools. Continue and improve those that are the most effective.
- C.4.c.** Develop a comprehensive urban forestry public awareness strategy.
- C.4.d.** Increase use of existing public awareness resources within the department and increase partnerships with other public awareness resources.
- C.4.e.** Explore and implement methods to expand public awareness skill and capability of the Urban Forestry Working Group.
- C.4.f.** Encourage and support urban forestry council public awareness efforts.
- C.4.g.** Continue to build awareness with local elected officials and policy makers to maintain support for existing local programs and improve efforts to build awareness in non-participating communities as a prelude to developing their new local programs.
- C.4.h.** Heighten awareness of urban forestry and program activities among state agencies, state-level policy-makers and legislators.
- C.4.i.** (C.1.c.) Increase DNR awareness of urban forestry, from top managers to field foresters, highlighting the opportunities it provides to accomplish their management and awareness goals. Methods could include articles in Timberline, DNR Digest or e-Digest, presentations at basin, regional or statewide meetings, items for division, region and basin quarterly reports, etc.

C.5. PARTNERSHIPS

The DNR recognizes that partnerships are the way to do business in resource management. The urban forestry program typifies this philosophy not only in how it does business, but in how it recommends its clients manage the urban forest resource.

On a statewide level, the Wisconsin Urban Forestry Council, a group of stakeholders, advises the program and provides opportunities for inter-agency, intra-agency, and inter-organizational partnerships. State level partnerships take the form of cooperative agreements, grants, contracts, donations, etc. Examples include:

- The USDA Forest Service which provides staff training, technical assistance and funding for program activities.
- The Wisconsin Arborist Association cosponsors their annual conference with the DNR's urban forestry conference. Attendance has more than doubled as a result.
- The Madison Area Builders Association, urban forestry council and DNR program cosponsored educational rest stops at the MABA Home Products show. Over 16,000 attended.
- The annual DNR urban forestry workshops are taught by contracted consultants relieving staff from 3 weeks of instruction and stimulating private sector training capacity.
- The University of Wisconsin-Stevens Point and the DNR formed a cooperative agreement to develop a method to assess the extent and character of Wisconsin's urban forest resource.

Partnerships are the only way things get done on the local level. The DNR provides advice and funding for urban forestry management, but the way projects are accomplished in most small communities is through partnerships – with consultants, nonprofits, utilities, schools, volunteers or even with other communities. The regional coordinators facilitate development of varied volunteer and partnership opportunities at the local level.

Study Findings: Partnerships	
Strengths	Concerns
<ul style="list-style-type: none"> • The program has strong partnerships with the USDA Forest Service, National Arbor Day Foundation, Wisconsin Arborist Association, and a variety of other state and local organizations. • Existing partnerships have increased the capacity to provide assistance and accomplished tasks that otherwise could not be done. • The urban forestry council has increased its level of responsiveness, interest and sphere of influence in the social and political arenas. • Regional coordinators encourage local program implementation through partnerships. • Articles on volunteer development and management are featured in each issue of <i>Wisconsin Urban & Community Forests</i> newsletter. 	<ul style="list-style-type: none"> • There has been a loss of key urban forestry-oriented staff within UW-Madison and county Extension. • Encouraging the best use of council talents and capabilities is a continuing challenge. • Some existing partners would like additional support to promote urban forestry within their organization. • Inter- and intra-agency partnerships are limited, as are partnerships with under-represented populations. • Coordinators have identified other partnerships that could benefit urban forestry assistance delivery, however, the time necessary for partnership development conflicts with the increasing demand for direct assistance. • The coordinators are urban foresters and don't have formal training in partnership development. • How far should the program extend beyond the current partners?

Analysis

Major partnerships are integrated into the delivery of the department's urban forestry assistance. Each partner brings a unique perspective to urban forest management, and has the potential for expanding program impact. Urban forestry coordinator efforts are more productive and far reaching where partners help to provide or facilitate assistance. Partnerships may also arise in response to emerging issues such as urban forest pests, urban sprawl, development, etc.

Developing and nurturing partnerships is time consuming and challenging. The state coordinator primarily develops partnerships to accomplish statewide activities. Regional coordinators primarily assist clientele to develop their own partnerships. What is missing is development of partnerships to expand

assistance delivery capacity. This could be done by developing partnerships to add assistance capacity similar to a coordinator, and/or to accomplish certain existing coordinator or program duties to free up assistance time. The conundrum is: Which is most productive, providing assistance or developing partnerships?

Study data shows that communities prefer and particularly appreciate direct financial and consulting assistance from the DNR. However, the coordinators cannot meet current demands for these services and demand is growing. The urban forestry council is recognizing that it has a role to play in providing urban forestry assistance and developing partnerships with the department.

Conclusions

- Partnerships have proven to be a successful method of increasing the capacity and effectiveness of the program.
- Communities need assistance in building more partnerships.
- Without additional partnerships, both internal and external, the demand for assistance will continue to exceed the capacity to supply it.
- The Council serves as an effective entry for organizations and agencies to get involved in urban forestry.
- Though coordinators encourage, utilize and facilitate partnerships, they are trained urban foresters and are most efficient at providing direct assistance to clientele.
- Workload prevents expanding coordinators' efforts at partnership development.

Recommendations

C.5.a. Maintain current state-level partnerships.

C.5.b. Continue to encourage local productive partnerships to manage urban forest resources.

C.5.c. Assess the benefits and workload impacts of potential partnerships prior to entering into agreements.

C.5.d. (C.2.g.) Explore and implement methods to increase the bureau of forestry's ability to actively seek out partnerships to increase statewide public, private and nonprofit sector capacity for urban forestry assistance.

C.5.e. Explore and implement methods to expand local partnership development capability of the Urban Forestry Working Group.

C.6. SMALL COMMUNITIES

Small communities (those under 5000 in population) make up 82% of Wisconsin cities, villages and urban townships and 20% of the urban population. Smaller communities generally lack adequate infrastructure, public forest resources, financial and staff resources, technical knowledge, and/or concern to initiate and maintain urban forestry programs.

Study Findings: Small Communities	
<p>The community survey identified small community vs. large community disparity in much of the data:</p> <ul style="list-style-type: none"> • <u>Participation</u> – Only one third of Wisconsin communities participate in the urban forestry program. Ninety three percent of those that do not participate are communities under 5000. • <u>Manager</u> – less than half of small communities have someone assigned to manage community trees and the smaller the community, the less time that manager spends on trees - as little as 3-7% of his or her time for communities under 1000. • <u>Tree budget</u> – There is a direct linear relationship between community size and having a tree budget. • <u>Inventory</u> – Mid-sized communities are most likely to have a community tree inventory (64%) while only 1% of the smallest communities have one. • <u>Awareness of products</u> – Only 36% of small communities were aware of <i>Wisconsin Urban & Community Forests</i> newsletter compared to 100% of large communities despite the newsletter being sent to all communities. • <u>Grant application</u> – Small communities are less likely to apply for an urban forestry grant though the correlation is more directly related to availability of a tree manager rather than community size <i>per se</i>. However, in 1999, 58% of the grants awarded went to communities under 5,000 in population. • <u>Volunteers</u> – Use of volunteers for community tree management is fairly constant ranging from a low of 16% for communities under 500 to a high of 36% for communities 10,000-49,000. 	
Strengths	Concerns
<ul style="list-style-type: none"> • Support for volunteer tree boards is increasing with special newsletter articles, publications and an educational reception, sponsored by the urban forestry council, at the annual conference. • Additional grant rating points are given to communities under 5,000. • Participation by smaller communities, although still not proportionate to their numbers, is increasing as reflected by the increase in grants awards from 30% in 1993 to 58% in 1999. • Coordinators have been successful with uniting two or more communities to form consortiums, provide mutual assistance or share staff and resources. 	<ul style="list-style-type: none"> • The two main reasons small communities don't apply for grants are a belief that they cannot meet the grant match requirement and that tree management is not a priority. • Identifying a key contact in the community to take the urban forestry lead is very difficult. • Communities without a trained forest manager require extensive nurturing of either staff or a volunteer program or both. • Though capable, the urban forestry working group is weak in volunteer development skills. • To what extent should additional efforts be made to encourage small community participation?

Analysis

Small communities are a significant proportion of Wisconsin's local governments, population and urban area. Therefore management of the urban forest in these communities could have a significant impact on the collective urban forest resources of the state.

The majority of small communities do not actively manage their trees, regardless of the availability of technical assistance or grants. Those smaller communities with programs have relied heavily on urban forestry grants for program establishment and development. The grants have much higher potential impact in smaller communities where a grant can easily exceed the total forestry budget.

Owing to the lack of training and awareness of staff and public officials, smaller communities do not feel they can participate and so are less likely to request services. In regions where high workload requires reactive, not proactive, assistance, this means small communities will receive less attention. The training and awareness deficit also results in a disproportionate amount of time and effort needed to initiate and nurture small community forestry programs. A large part of the effort is in simply finding the appropriate party to lead the urban forestry effort. Without specific training in small community dynamics, the coordinators' time is spent inefficiently resulting in fewer communities served by the limited staff.

Recent efforts to engage small communities have had success. For example, awarding additional grant rating points to communities under 5000 has increased the number of grants awarded to those communities. On the other hand, mass mailings and cold calling has only had limited success and large-scale marketing specifically to smaller communities has not taken place.

Conclusions

- Because smaller communities represent a higher proportion of non-participating communities, more smaller communities “fall through the cracks.”
- The collective significance of small communities requires that the program search for methods to stimulate small community urban forest management.
- Major stumbling blocks to small community participation are perceptions of the program’s relevance and suitability.
- Workload constraints and lack of volunteer development skills have an impact on the extent to which the urban forestry coordinators actively promote program establishment to non-participating communities.
- There may be a minimum threshold of community characteristics such as population, tree resource, infrastructure, budget, staff or volunteer advocates, below which community forestry is not practical.
- Although an increasing number of smaller communities are participating in the grants program, grants alone in their present form haven’t been enough to stimulate participation.

Recommendations

- C.6.a.** Continue to provide urban forestry assistance to small communities and include them in all mailings and other contacts.
- C.6.b.** Accommodate small community circumstances within existing products and services and include themes relating to small communities.
- C.6.c.** Continue to adjust the urban forestry grant program to stimulate small community participation.
- C.6.d.** Analyze small community characteristics to determine whether there is a point below which tree resource management is not practical. Use this information to prioritize proactive efforts and don’t market specifically to communities where urban forestry program development may be impractical.
- C.6.e.** Explore and implement methods to expand small community involvement capability of the Urban Forestry Working Group.

E. FUTURE URBAN FORESTRY ASSISTANCE ROLES

Urban forestry in Wisconsin is changing. The success of the DNR urban forestry assistance program has created a substantial unmet demand for additional assistance. Short of a massive increase in DNR urban forestry staff, the working group has to not only prioritize its current activities, but to evaluate how to best use its resources to address the demand.

In addition to the detailed data reported in the Program Issues section, the team examined over 60 different urban forestry assistance activities to assess which should be priorities of the urban forestry staff, which could be more efficiently handled by other DNR experts and which might be better handled or also handled by partners from other agencies, the private sector or the nonprofit sector. The activities were categorized into the types of assistance the DNR provides – technical assistance, education and training, resource development, public awareness, and coordination and cooperation. The activities were then evaluated as to whether the DNR urban forestry staff do them, whether they should be a priority, and who else could do them.

Study Findings and Analysis

The first assessment showed that each of the possible activities is being performed by at least one of the coordinators within the working group. This is the result of a regional disparity of internal and external resources. For example, the Northeast, Southeast and South Central regions have a reasonable supply of private urban forestry consultants and certified arborists, so the coordinators in these regions infrequently consult on specific arboriculture issues. Private consultants are rare in the West Central and Northern regions requiring that in the short term, the coordinators in these two regions provide more arboricultural advice.

The analysis revealed that a number of the activities are provided by the coordinators because even though there are traditional sources that provide the service, there are either insufficient resources available to provide them or the strategic direction of the providing organization has changed. Lack of clerical help and grants management assistance are examples of the former. University of Wisconsin Extension is an example of the latter. Both at the county and state level, Extension staffing that supports urban forestry – horticulture, plant pathology, entomology – has been on the decline. Newsletters, workshops and conferences that once would be handled by Extension must now be provided by DNR.

Overall, the analysis showed that though the urban forestry coordinators are performing most of the urban forestry activities, many activities could be handled by internal and/or external partners, some independently, some with direction or cooperation from DNR urban foresters. Some partnerships already exist, however, there are certain activities where the DNR urban forestry is the only player. These activities fall into two general categories – “big picture” activities, and local program development activities.

The DNR is the only organization that addresses the state urban forest resource as a whole. As such, it is uniquely positioned to integrate activities of other department programs, other agencies, non-government organizations and the private sector to enhance the urban forest ecosystem. On the local level, the department is often the only objective, unbiased resource for information and assistance available. In addition, the level of advocacy, persuasion and nurturing needed to initiate an urban forestry management program is not currently available from any other source.

Conclusions

- The DNR is and should remain the leader in advocating for Wisconsin’s urban forest resource.
- The urban forestry working group alone cannot fulfill the current and expanding demand for assistance, so increasing capacity of others to provide urban forestry assistance is a more effective role than being the sole provider.
- There is great potential for involvement of other resources, agencies and organizations in supporting the activities of the working group and independently providing assistance in urban forest management.
- There are regional differences in internal and external resources that demand different roles for individual urban forestry coordinators.

Recommendations

D.1. Provide leadership in managing the state’s urban forests by:

- a. Directing state and regional scale urban forest assessment and resource goal development
- b. Coordinating state and regional activities that further the program’s strategic goals
- c. Expanding internal and external resources to meet current and future demand for direct services.
- d. Providing direct urban forestry assistance on program development to local governments and nonprofit organizations, according to DNR service guidelines, where other resources are not available, practical or advisable.

D.2. Expand the role of the urban forestry working group as coordinator and reduce its role in performing non-urban forestry functions. These functions should be identified in the revised strategic and implementation plans and changes incorporated into revised position descriptions if appropriate.

E. NEW URBAN FORESTRY STRATEGIC GOALS

The team studied the existing eight strategic goals for the urban forestry assistance program in light of the data gathered and analyzed. The team found that most of the goals are still valid, however, there was one significant omission, and two goals were not significantly different to merit separation.

Despite the program's mission – "To Encourage and Enable Sound Management of Wisconsin's Urban Forest Ecosystems" – the original eight goals focused entirely on program, omitting a specific goal for the urban forest ecosystem. Though implied, the team feels that urban forestry assistance should have an explicit goal for the resource, as it is the foundation on which all local programs are built.

The team also concluded that the goal "Partnerships" is in fact the method to achieve the goal of "Cooperation and Coordination" so a new goal that literally combines the two previous goals is proposed.

NEW OBJECTIVES, TASKS AND PERFORMANCE MEASURES

The team evaluated the advisability of revising the 1993 urban forestry strategic plan and developing performance measures for future performance evaluations – team charges numbers three and five. It concluded that though necessary, these tasks should not be performed by this team. There are forty-six recommendations put forward in this report, however, they have not been approved by the Forestry Policy Team. This will be necessary prior to revising the plan. In addition, the team feels that strategic planning is the responsibility of the Urban Forestry Working Group, the Wisconsin Urban Forestry Council and the Forestry Policy Team. Regarding performance measures, without knowing the program objectives and tasks that will be contained in the revised plan, it would be impossible to develop meaningful performance measures for the program.

Recommendations

E.1. Replace the existing strategic goals of the Urban Forestry Assistance Program with the following eight goals or "desired states."

The Urban Forest Resource

All Wisconsin communities have an optimal and sustainable urban forest.

Public Awareness

The public understands the importance and value of urban forests and the need for sound ecosystem based forest management in the urban and traditional forest setting.

Active Management

All Wisconsin communities actively manage their urban forest ecosystem for maximum benefit to the people and the environment.

Research & Education

All practitioners are knowledgeable in state-of-the-art urban forest management practices.

Technical Support

Community forest management programs have all necessary technical direction, support and assistance.

Program Support

Community forestry programs have strong financial, governmental and popular support.

Coordination & Cooperation through Partnerships

All who impact the urban forest ecosystem work cooperatively toward sound resource management.

State Plan

A dynamic state plan directs urban forest ecosystem management.

E.2. (B.1.) Engage the Urban Forestry Working Group, the Wisconsin Urban Forestry Council and the Forestry Policy Team to revise the strategic plan for the urban forestry assistance program in 2001.

CONCLUSION

THE URBAN FOREST RESOURCE

The area of the state considered urban forest is expanding at an ever-increasing rate, currently covering nearly 5% of Wisconsin's land area and encompassing 81% of the state's population. The DNR has begun to assess the character of the urban forest, identifying an average canopy cover of 29% across the state. However, in order to provide management assistance and science-based resource objectives, it is critical that the urban forestry program further characterize the resource from a biological and ecological standpoint. Not only will this provide communities and their residents with common environmental goals, it will provide information to allow better integration of the DNR's urban resources and environmental quality programs.

THE DNR URBAN FORESTRY PROGRAM

Overall, DNR's urban forestry assistance is considered to be a very high quality program, appreciated and respected by its clientele. The staff are viewed as dedicated, hard-working, skilled professionals that are strong advocates for the communities they serve. The team structure of the urban forestry working group has been very successful and has capitalized on the individual strengths of its members. The products the program produces – newsletters, workshops, conferences, presentations – are consistently rated very high. The urban forestry grants, managed with assistance from Community Financial Assistance and Finance, are ranked first in preferred assistance and are in high demand. The program works closely with nonprofit organizations and private enterprise to encourage increased capacity for urban forestry assistance.

Despite these successes, there are concerns. The coordinators lack sufficient operating funds to support their activities. Workload is disparate among regions. Coordinators are performing time-consuming tasks inappropriate for their expertise. Though highly sought after and very successful at stimulating participation, urban forestry grants also generate substantial internal and external frustrations regarding bureaucratic complexity. There is a significant lack of public awareness, despite numerous program efforts. The program has successfully used partnerships to improve urban forestry management and assistance, but many more are needed and coordinators have no time to nurture them. Small communities are underrepresented in the program, but require time consuming assistance.

The demand for urban forestry assistance is well above the capacity to provide it – at least 50% higher than the program can currently provide. With only one-third of Wisconsin communities participating, this demand will only increase. In addition, the type of assistance needed by non-participants focuses on encouragement, nurturing and development of political and public support, which is time consuming and requires more partnership development skills than urban forestry skills. The DNR is not and should not be the sole source of urban forestry assistance, however, other available resources are often limited.

THE FUTURE OF URBAN FORESTRY ASSISTANCE

The study team strongly recommends strategic expansion of the urban forestry program. Specifically, expand the role of the urban forestry working group as coordinator, while maintaining its highly valued direct assistance and reducing its role in performing non-urban forestry functions. These strategic changes will meet current and future demand by improving staff efficiency and by directing a greater focus on increasing partnerships and assistance capacity at all levels.

The urban forestry program is strong in what it provides and it should continue with its successes. This is reflected in 14 of the study teams recommendations. However, 27 recommendations reflect the political, social and environmental trends that require efforts to increase assistance capacity.

It is imperative that the program meet the current demands for assistance, both directly and through facilitation and coordination, for as the backlog increases, the urban forestry coordinators, the program's

reputation and the urban forest resource will suffer. In addition to the existing demand for assistance, expanding urbanization, land use and smart growth issues in the next ten years will greatly increase, and change, the need for cutting-edge urban forestry assistance at the community level and within the DNR itself. Knowledge of the character of the urban forest resource will be particularly critical during this time. Without it, forestry will be left out of the department's urban land use equation. Finally, the concern over diversion of mil tax funds away from urban areas certainly will not go away and an expanded urban forestry program can provide public, community and legislative support for the forestry program as a whole.

This report offers opportunities to capitalize positively on the urban trends in Wisconsin. Approval and implementation of the study team's recommendations will position the Division of Forestry and the DNR to lead a broad effort in management of urban natural resources for years to come.